Using Experiential Learning to Increase the Recognition of Everyday Sexism as Harmful: The WAGES Intervention

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Abstract

The harms of subtle sexism tend to be minimized despite negative cumulative effects, thus people may be less motivated to address subtle sexism. We tested the effectiveness of an experiential learning intervention, WAGES-Academic, to educate about the harms of subtle sexism in the academic workplace. Across two studies, WAGES increased the recognition of everyday sexism as harmful and promoted behavioral intentions to discuss and seek information about gender inequity compared to a control condition that provided identical information as WAGES but without experiential learning. These effects were due to WAGES limiting reactance and promoting self-efficacy. Moreover, WAGES did not differ in reactance or self-efficacy compared to a control condition that provided no gender inequity information. This suggests that WAGES buffers the potential negative effects of simply presenting gender inequity information. Results suggest that WAGES, and experiential learning more broadly, has the potential to change attitudes and behaviors about everyday sexism.

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Interventions for reducing sexism are underrepresented in the broader literature on prejudice reduction. Of the few, most interventions have focused on their effectiveness for increasing the awareness of gender discrimination in society (e.g., Becker & Swim, 2011, 2012; Case, 2007; de Lemus, Navarro, Megias, Velasques, & Ryan, 2014; Zawadzki, Shields, Danube, & Swim, 2014). For example, attending to sexism in everyday experiences (Becker & Swim, 2011) has been shown to increase recognition that gender discrimination exists in society. Acknowledging the existence of sexism in broader society is undoubtedly an important step toward improving gender equity. It cannot be assumed, however, that such acknowledgment translates into important aspects of addressing sexism, including recognizing the harm of seemingly minor everyday instances of sexism that are embedded within daily interpersonal interactions (Calogero & Tylka, 2014; Sue, 2010; Swim, Cohen, & Ferguson, 2001) and behavioral intentions aimed towards addressing gender inequity. We build upon our prior work (e.g., Zawadzki et al., 2014) to test the effectiveness of the Workshop Activity for Gender Equity Simulation-Academic (WAGES; Shields, Zawadzki, & Johnson, 2011), an experiential learning intervention, for increasing the recognition of everyday sexism as harmful and for promoting behavioral intentions to learn more about and discuss gender inequity.

Recognizing Everyday Sexism as Harmful

Our present work examines the effectiveness of WAGES for increasing recognition of the harm of seemingly minor incidents of everyday sexism, whereas our prior work (Zawadzki et al., 2014) examined WAGES' effects on endorsement of sexist beliefs or acknowledgment of gender discrimination in broader society. We define everyday sexism as minor sexist incidents or

microaggressions that occur in everyday interactions (Sue, 2010; Swim et al., 2001), such as gender-typed expectations, stereotypic comments, and language that excludes women. The harm of everyday sexism is difficult to recognize because the effects tend to be distal and cumulative, meaning that each minor sexist incident does not have immediate observable consequences. Over time, however, these incidents accumulate to negatively affect the psychological well-being and material outcomes of women (Swim et al., 2001; Valian, 1998).

It is important to examine everyday sexism directly because acknowledging gender discrimination in broader society may not translate to the recognition of harm of everyday sexism. An individual may acknowledge that gender discrimination is a problem in society without recognizing that everyday sexism contributes to the problem. Supporting this notion, Swim and colleagues (2005) reported that acknowledging the existence of gender discrimination in society had only a small relationship with judgments about the sexist nature of seemingly minor behaviors, such as telling a sexist joke. The small relationship between judgments of sexism in broader society and judgments of sexism in individual behaviors suggests that although these constructs are related, they are not equivalent. Seemingly minor incidents of everyday sexism are unlikely to elicit concern and be challenged if they are not perceived as harmful (Becker & Swim, 2012); thus, it is important for interventions to raise awareness of the harms of these incidents.

Motivating Behavioral Intentions

In addition to increasing the recognition of everyday sexism as harmful, the present study examined the effectiveness of WAGES for increasing behavioral intentions to reduce sexism. Research has time and again pointed to a disconnect between beliefs or attitudes and behaviors (e.g., the "value-action gap;" Kollmuss & Agymen, 2002). In other words, when examining the

effectiveness of an intervention to reduce sexism, it is imperative to go beyond attitudes to also assess participants' willingness to engage in behaviors. The theory of reasoned action points to behavioral intentions as the key link between attitudes (and other influences) and behaviors (Ajzen, 1991). Therefore, to advance our understanding of the extent to which experiential learning via WAGES impacts sexism, we measured behavioral intentions that are important and relevant to our undergraduate sample: learning more about and discussing sexism with others.

Challenges to Teaching about Everyday Sexism

Teaching individuals about everyday manifestations of sexism can be challenging; we focus on addressing two specific challenges, namely limiting reactance to the message and promoting self-efficacy to effect change. Our prior work has demonstrated the importance of reducing reactance and promoting self-efficacy for increasing knowledge of gender inequity (Zawadzki, Danube, & Shields, 2012) and reducing the endorsement of sexist beliefs (Zawadzki et al., 2014). In the present work, we extend our prior findings by examining the robustness of these process variables for increasing the recognition of harm of everyday sexism and for promoting behavioral intentions to learn more about and discuss gender inequity.

We define reactance as a tendency to reject information as untrue regardless of the information's content or actual veracity (based on Brehm & Brehm, 1981). While often treated as a trait variable, we measure state levels of reactance, which manifest as a refusal to accept what is being presented as true, and/or as a perception that the information is exaggerated or biased. Learning about the harms and pervasiveness of everyday sexism may elicit reactance because such information may threaten one's view of the world as just and fair (Schmitt, Branscombe, & Postmes, 2003; Stroebe, Dovidio, Barreto, Ellemers, & John, 2011). Reactance can result in the rejection of presented information, strengthen a view or attitude that is contrary

to what was intended, and/or increase resistance to alternative perspectives (Batson, 1975). Thus, to effectively promote awareness of the harm of everyday sexism, interventions must provide individuals with information about sexism in a way that does not elicit reactance.

Effective interventions must also provide information about sexism in a way that promotes self-efficacy, that is, the belief or perception that one can use information to implement behaviors to achieve a goal (Bandura, 1977). Given the pervasiveness of everyday sexism (Swim et al., 2001), many individuals may feel helpless to intervene. However, when messages promote self-efficacy, they can increase message acceptance and motivate positive behaviors (Bandura, 2004; Good & Abraham, 2011). Thus, to promote message acceptance and the desire to act, sexism reduction interventions should instill individuals with a sense of self-efficacy that they have the ability and knowledge to combat everyday sexism.

Experiential Learning as a Means of Combating Challenges

The manner in which information about sexism is conveyed has important effects on reactance and self-efficacy. Simply providing participants with information about the occurrence of gender bias in the workplace can elicit reactance and undermine self-efficacy and, as a result, produces minimal or no changes in the subsequent endorsement of sexist beliefs (Zawadzki et al., 2014). By contrast, in the same study we found that providing information in an experiential learning format via WAGES led to comparatively less reactance and greater self-efficacy, thus facilitating reductions in the endorsement of sexist beliefs (see also Zawadzki et al., 2012).

We propose that WAGES limits reactance and promotes self-efficacy, compared to other presentation formats, because it uses the process of experiential learning to teach about the harms of everyday sexism. Experiential learning constructs knowledge through a cyclical process comprised of four stages: experiencing, reflecting, thinking, and acting (Kolb, 1984). During this

process, concrete experiences provide the basis for reflective observations. Learners use these observations to develop abstract concepts, or theories, about a given phenomenon. The theories are then actively tested and serve as guides for creating new experiences (Kolb, 1984).

WAGES follows the process of experiential learning by first providing participants with a concrete experience upon which they can reflect (described in more detail below). More specifically, WAGES allows individuals to gain knowledge incrementally based on their own experience, which we have demonstrated is less threatening and elicits less reactance compared to non-experiential learning formats (Zawadzki et al., 2012). Next, participants engage in a facilitated discussion that promotes reflection about their experience and leads participants to form abstract concepts about the meaning and implications of the experience (Schmidt, Loyens, van Gog, & Paas, 2007). Importantly, the discussion and subsequent reflection provide individuals with an understanding of how to deploy their new knowledge to create new experiences (Kolb & Kolb, 2005), thus promoting self-efficacy (Zawadzki et al., 2012).

The Present Research

Across two studies, we tested the effectiveness of WAGES-Academic for increasing the recognition of everyday sexism as harmful (Study 1) and for promoting behavioral intentions to act upon that knowledge (Studies 1 and 2). WAGES uses experiential learning to simulate the cumulative effects of subtle sexism on the career experience of college/university faculty. Specifically, participants are randomly divided into two teams, a green team (later revealed to represent women's experiences) and a white team (later revealed to represent men's experiences), for a board game-type activity in which the object of the game is to advance up the academic ladder. Over the course of the game, small and seemingly innocuous advantages given to the white team accumulate to produce noticeable disparities between the two teams. At the end

of the game, all participants engage in a facilitated and structured 30-minute group discussion that connects the experience of green (disadvantaged) and white (advantaged) team members to those of women and men in the workplace. To begin, participants provide their initial reactions to the game, and the facilitator then discusses how the game represents the experiences of women and men in the workplace. This point is made clearer with a side-by-side comparison of the green team and white team cards that illustrates the seemingly minor biases experienced by the green team. The facilitator then uses the game cards to emphasize four key learning objectives (e.g., accumulation of minor biases hinders advancement). Finally, the facilitator discusses ideas for participants to turn their new information into action (for more details, visit http://wages.la.psu.edu/; see also Shields et al., 2011). Thus, the procedures convey knowledge about the cumulative harms of single incidents of subtle sexism through active engagement.

We compared participation in the WAGES intervention to two control conditions: information only and a group activity. In the information only condition, participants received the same information provided in WAGES, but in a non-experiential learning format. The information only condition allowed us to ensure that simply receiving information about gender inequity did not account for our findings, and to examine whether the predicted effectiveness of WAGES was due to low reactance and increased self-efficacy. In the group activity condition, participants played a game and engaged in a discussion about issues related to working in groups and reducing intergroup conflict. Because the group activity condition did not present any specific information about gender inequity, it provided a comparison against which to interpret differences between the WAGES and information only conditions. Specifically, because the information presented in the group activity condition was non-controversial, we expected reactance to be low. The information also contained steps that participants could take to improve

group dynamics (e.g., have a common goal, establish that group members have equal status, create a comfortable and friendly environment; Pettigrew, 1998), and so we expected self-efficacy to be high. The group activity condition thus provided a comparison from which to examine whether WAGES produced similarly low reactance and high self-efficacy.

In addition to including two control conditions, in Study 1 we also examined the effects of WAGES over time. Participants indicated the extent to which they perceived everyday sexism as harmful at three time points: before the intervention (baseline phase), immediately following the intervention (intervention phase), and one week after the intervention (follow-up phase). If WAGES is an effective method for promoting recognition of the harms of everyday sexism (Study 1) and increasing behavioral intentions to discuss and seek information about gender inequity (Study 1 and 2), we would expect the following:

Hypothesis 1. WAGES should increase the perceived harm of everyday sexism compared to baseline and compared to the information only and group activity conditions at both the intervention and follow-up phases (Study 1).

Hypothesis 2. WAGES should increase behavioral intentions to discuss and seek information about gender inequity compared to the information only and group activity conditions (Studies 1 and 2).

Hypothesis 3. The information only condition should elicit greater reactance and less self-efficacy compared to the WAGES and group activity conditions; we expected no differences between the WAGES and group activity conditions (Studies 1 and 2).

Hypothesis 4. Reactance and self-efficacy should mediate the effect of the WAGES vs. information only conditions on (a) perceived harm of everyday sexism (Study 1), and (b) behavioral intentions (Studies 1 and 2).

Exploratory hypothesis. Importantly, an alternative explanation is that WAGES may be more effective than the information only condition because it is more engaging. To test this possibility, we included engagement as an additional mediator in our models.

Study 1

Method

Participants. Undergraduates (n = 1007) from a large mid-Atlantic university completed the baseline survey as part of a mass screening and were then recruited for the intervention and follow-up phases in exchange for course credit. Of those recruited, 363 participated in the intervention phase. One week later, 192 participants completed the ostensibly unrelated follow-up. We limited our working dataset to participants who completed all three phases of the study (n = 192). Importantly, a Multivariate Analysis of Variance (MANOVA) across all dependent measures from the intervention phase revealed no significant differences between those who completed all three phases (i.e., baseline, intervention, and follow-up; n = 192) and those who completed only the first two phases (i.e., baseline, intervention; n = 171), $F < 1$. Our working dataset consisted of 148 women, 41 men, and three people who did not report their gender (M_{age} = 18.96, SD = 2.21). Participants identified primarily as White or Caucasian (85.4%), Black or African American (4.7%), bi- or multi-racial-ethnic (3.1%), or Hispanic (2.1%).

Procedure. During the baseline phase, participants completed the Perceived Harm of Everyday Sexism (PHES) Scale as part of a mass screening survey. During the intervention phase, we randomly assigned participants to one of three conditions: WAGES, information only, or group activity, with 5 to 12 participants in each session. Participants in the WAGES condition (n = 59) completed the WAGES-Academic intervention described above. Participants in the information only condition (n = 64) received the same information about gender inequity as the

WAGES condition, but in a non-experiential learning format. Specifically, participants read handouts containing all the information from the individual WAGES game cards but organized by topic (e.g., work-family balance), and then read a transcript of the structured post-game discussion from the WAGES condition. In the group activity condition, participants (n = 69) played a modified version of Chutes and Ladders® and engaged in a structured discussion about group dynamics and the factors that encourage positive intergroup contact without any explicit focus on gender inequity. Immediately after the intervention, participants completed measures of engagement, reactance, self-efficacy, behavioral intentions, and the PHES Scale. During the follow-up phase one week later, participants completed the PHES Scale (along with other measures not relevant to the present paper and reported elsewhere; see Danube, Cundiff, Zawadzki, & Shields, 2014).

Measures. Participants responded to each measure using 7-point scales ranging from (1) *Not at all* to (7) *Very much*, unless otherwise noted. Across variables, higher numbers indicated greater perceived harm (αs = 0.86 to 0.92), engagement (α = 0.89), reactance (α = 0.83), self-efficacy (α = 0.82), and behavioral intentions (α = 0.95).

Perceived Harm of Everyday Sexism (PHES) scale. Participants completed 26 items adapted from a measure of the prevalence of everyday sexist incidents (Swim, Cohen, & Hyers, 1998); however, we used only the nine items relevant to the information presented in the WAGES and information only conditions to form the PHES scale. Five items assessed how harmful it is for a woman to be encouraged to do gender stereotypical activities, discouraged from doing non-stereotypical activities, approved of (and separately, disapproved of) based on her conformity to gender stereotypes, and unfairly perceived as gender stereotypical. Four items assessed the harm of language that excludes women, sexist jokes about women, stereotypical

comments about women's abilities, and stereotypical comments about the work and family roles for women. Participants responded to each item using a 7-point scale ranging from (1) *Not at all harmful* to (7) *Very much harmful*.

Engagement. Using a 7-point scale ranging from (1) *Strongly disagree* to (7) *Strongly agree*, participants indicated their engagement with the study (12 items; e.g., "I felt engaged in this study"; "The study was interesting").

Reactance. Participants indicated the extent to which they denied the veracity of information provided during the intervention (four items; e.g., "Much of the information given today seemed exaggerated"; Zawadzki et al., 2012).

Self-efficacy. Participants indicated the extent to which they believed they had personal control or agency to act on what they learned during the intervention (seven items; e.g., "What I heard today provides opportunities for me to overcome obstacles"; Zawadzki et al., 2012).

Behavioral intentions. Participants indicated the extent to which they intended to engage in each of 15 behaviors related to discussing and seeking additional information regarding gender inequity (e.g., discuss the sources of bias further; find additional information on when and how bias in the workplace occurs).

Results

Preliminary analyses. Our prior research has indicated that WAGES tends to be effective for both women and men, with WAGES at times being more effective for women (Zawadzki et al., 2012, 2014). Thus we explored whether gender moderated our results. We submitted each dependent variable (reactance, self-efficacy, and behavioral intentions) to separate 2 (participant gender) x 3 (intervention condition) between-participant ANOVAs, and we submitted PHES scores to a 2 (participant gender) x 3 (intervention condition) x 3 (time:

baseline, intervention, follow-up) repeated-measures ANOVA with time as the repeated measure. Gender did not interact with intervention condition on any of the dependent measures, $ps \geq .233$, indicating that the intervention conditions had similar effects for both women and men. As a result, we collapsed across gender for all subsequent analyses.

H1: Effect of WAGES on perceived harm of everyday sexism. We submitted PHES scores to a 3 (intervention condition: WAGES, information only, group activity) x 3 (time: baseline, intervention, follow-up) repeated-measures ANOVA with time as the repeated measure (see Table 1). Because sphericity could not be assumed, $W = .91$, $\chi^2 = 15.31$, $p < .001$, we applied the Huynh-Feldt correction (Girden, 1992). Results revealed a main effect of time, $F(1.88, 313.93) = 6.36$, $p = .002$, $\eta^2_p = .04$, which was qualified by the predicted Time x Intervention Condition interaction, $F(3.76, 313.93) = 2.65$, $p = .036$, $\eta^2_p = .03$ (see Table 1).

To decompose the interaction, we first examined pairwise comparisons between intervention conditions at each time point. As expected, perceptions of harm did not vary across conditions at baseline, $ps \geq .689$. By contrast, during the intervention phase, participants in the WAGES condition perceived everyday sexism as more harmful than did participants in the information only, $p = .002$, $d = .62$, and group activity conditions, $p = .046$, $d = .43$, which did not differ from each other, $p = .236$. At follow-up, participants in the WAGES condition continued to perceive everyday sexism as more harmful than did participants in the information only condition, $p = .026$, $d = .42$, but did not differ from the group activity condition, $p = .564$. We then examined differences across time within each intervention condition. Compared to baseline, participants in the WAGES condition perceived everyday sexism as more harmful immediately following the intervention phase, $p = .006$, $d = .43$, and at follow-up, $p = .003$, $d = .45$, which did not differ from each other, $p = .603$. Unexpectedly, however, participants in the

group activity condition perceived everyday sexism as more harmful at follow-up compared to baseline, $p = .036$, $d = .27$, and intervention phase, $p = .004$, $d = .32$. There were no significant differences in PHES scores across time for participants in the information only condition, $ps \geq .095$.

H2: Effect of WAGES on behavioral intentions. We submitted behavioral intentions scores to a one-way (intervention condition) ANOVA. The main effect of intervention condition approached significance, $F(2,188) = 2.96$, $p = .054$, $\eta^2_p = .03$ (see Table 1). Participants in the information only condition expressed fewer intentions to discuss and seek information compared to participants in the group activity condition, $p = .029$, $d = .38$, and the WAGES condition, $p = .048$, $d = .37$; the WAGES and group activity conditions did not differ, $p = .908$.

H3: Effect of WAGES on reactance and self-efficacy. We submitted reactance and self-efficacy scores to separate one-way (intervention condition) ANOVAs. There was a main effect of intervention condition on reactance, $F(2,188) = 9.66$, $p < .001$, $\eta^2_p = .09$, and on self-efficacy, $F(2,188) = 3.29$, $p = .039$, $\eta^2_p = .03$ (Table 1). As predicted, information only elicited more reactance, $ps \leq .006$, $ds > .46$, and less self-efficacy, $ps \leq .051$, $ds > .35$, compared to WAGES and group activity; WAGES and group activity conditions did not differ, $ps \geq .161$.

H4: Reactance, self-efficacy, and engagement as mediators. We predicted that reactance and self-efficacy would mediate the effect of intervention (WAGES vs. information only) on PHES scores and on behavioral intentions. Recall that we did not expect WAGES vs. group activity to differ on reactance or self-efficacy, which they did not, and so we did not test the mediation model for these two groups. We tested our hypothesis separately for each outcome using the multiple mediator analysis approach outlined by Preacher and Hayes (2008), setting 95% bias-corrected and accelerated confidence intervals and using 10,000 bootstrap resamples.

Besides the predicted mediators of reactance and self-efficacy, we included engagement as an additional mediator to test the exploratory hypothesis that engagement was the driving force of our effects. In each model, intervention condition (WAGES vs. information only) was the predictor; reactance, self-efficacy, and engagement were the mediators; and either behavioral intentions or PHES scores at the intervention phase were the outcome.

The overall models were significant for PHES scores, $F(4,117) = 8.94$, $p < .001$, $R^2 = .23$, and for behavioral intentions, $F(4,116) = 15.68$, $p < .001$, $R^2 = .35$. As shown in Figure 1, and consistent with predictions, WAGES elicited significantly less reactance and greater self-efficacy and engagement compared to information only. Less reactance and greater self-efficacy and engagement, in turn, predicted greater PHES scores and greater behavioral intentions. The 95% confidence intervals for the indirect effects predicting PHES scores through reactance [.03, .37], self-efficacy [.03, .34], and engagement [-.30, -.01], and for the indirect effects predicting behavioral intentions through reactance [.02, .37], self-efficacy [.04, .43], and engagement [.02, .30] did not include zero. Thus, reactance, self-efficacy, and engagement each mediated the effect of intervention condition on PHES scores and on behavioral intentions.

Discussion

Relative to the information only condition, WAGES increased participants' perception of everyday sexist behaviors as harmful and increased their intention to discuss and seek out information regarding gender inequity. Mediation analyses revealed that these effects were due to WAGES producing less reactance and greater self-efficacy and engagement than the information only condition. Importantly, reactance and self-efficacy were significant mediators even with engagement included in the model.

Compared to the group activity condition, the information only condition was consistently worse, whereas the WAGES condition performed well (i.e., similar levels of reactance and self-efficacy, and more perceived harm after the intervention but similar levels at follow-up). However, WAGES did not differ from the group activity condition on behavioral intentions. To help understand whether this is a reliable effect, we present the re-analysis of a dataset with which we had demonstrated that WAGES reduced endorsement of sexism compared to identical information only and group activity conditions (Zawadzki et al., 2014, Study 2). In that study, we collected information on behavioral intentions along with sexism measures. We completed preliminary analyses on the behavioral intentions data but did not include the data as it was beyond the scope of that paper. Results from that dataset are reported below as Study 2.

Study 2

Method

Participants. Undergraduates (155 women, 112 men, 4 unspecified) from a mid-Atlantic university participated in exchange for course credit (M_{age} = 19.38, SD = 1.94). Participants primarily identified as White or Caucasian (84.9%), Black or African American (3.3%), bi- or multi-racial-ethnic (3.3%), Hispanic (3.3%), or Asian (3.3%).

Procedure and materials. We report data from a study that had an identical three-part structure as Study 1 (Zawadzki et al., 2014, Study 2); the results we report come from data collected at the intervention phase. Specifically, participants were randomly assigned to one of three conditions described in Study 1: WAGES (n = 98), information only (n = 91), or group activity (n = 82). Immediately following the intervention, participants completed measures of engagement (α = 0.91), reactance (α = 0.84), self-efficacy (α = 0.88), and behavioral intentions (α = 0.96), as in Study 1 (along with other measures not relevant to the present paper).

Results

Preliminary analyses. We again explored whether gender moderated our results using the same analyses as in Study 1. Gender did not interact with intervention condition on any of the dependent measures, *p*s ≥ .094, and so we collapsed across gender for all subsequent analyses.

H2: Effect of WAGES on behavioral intentions. We submitted behavioral intentions scores to a one-way (intervention condition) ANOVA (see Table 1). A main effect of intervention condition emerged, $F(2,267) = 4.42$, $p = .013$, $\eta^2_p = .03$. Consistent with predictions, participants in the WAGES condition expressed stronger intentions to discuss and seek out information compared to participants in both the information only, $p = .006$, $d = .39$, and, in contrast to Study 1, the group activity conditions, $p = .024$, $d = .34$. Behavioral intentions did not differ between the information only and group activity conditions, $p = .673$.

H4: Reactance, self-efficacy, and engagement as mediators. As reported previously (Zawadzki et al., 2014), WAGES elicited less reactance than the information only condition, and more self-efficacy than both the information only and group activity conditions. As in Study 1, we used multiple mediation analysis to test the prediction that reactance, self-efficacy, and engagement would mediate the effect of intervention condition (WAGES vs. information only) on behavioral intentions. The overall model was significant, $F(4,183) = 25.17$, $p < .001$, $R^2 = .35$. As shown in Figure 2, less reactance and greater self-efficacy and engagement predicted greater behavioral intentions. The 95% confidence intervals for the indirect effects via reactance [.003, .18], self-efficacy [.06, .44], and engagement [.04, .36] did not include zero. Replicating Study 1, these results suggest that reactance, self-efficacy, and engagement each mediate the relation between intervention condition and behavioral intentions.

Discussion

Study 2 provides evidence that WAGES increases behavioral intentions compared to both the information only (replicating Study 1) and group activity (in contrast to Study 1). In addition, replicating Study 1, we found that the effect of WAGES (vs. information only) on behavioral intentions was due to less reactance and greater self-efficacy and engagement.

General Discussion

Our present findings show the effectiveness of WAGES-Academic for increasing the recognition of harm of seemingly minor everyday instances of sexism and for motivating behavior aimed toward addressing gender inequity. Notably, merely providing information about gender inequity in a non-experiential learning format (i.e., the information only condition) had a null or even a negative effect. This is consistent with other work suggesting that effective change for reducing sexual harassment (Buchanan, Settles, Hall, & O'Connor, 2014), reducing sexist beliefs (Becker & Swim, 2011; de Lemus et al., 2014), and increasing awareness of privilege (Case, Hensley, & Anderson, 2014) goes beyond simply providing information, but rather actively engages participants in knowledge construction. The different outcomes obtained by WAGES vs. information only were due to WAGES evoking less reactance and promoting self-efficacy, suggesting that reactance and self-efficacy are key for influencing perceptions of harm and behavioral intentions. Interestingly, engagement was a consistent additional mediator explaining the effects of WAGES vs. information only on perceived harm and behavioral intentions. This is not unexpected as the use of entertainment in education is suggested to be more persuasive and perhaps more effective in producing meaningful outcomes (Moyer-Gusé, 2008). Participants who were more engaged may have connected more with the gender inequity information and thus felt they could do more to address everyday sexism. Future work should further examine engagement in enacting attitude and behavior change.

The information only condition consistently performed worse than the group activity condition (i.e., less perceived harm, fewer behavioral intentions, more reactance, and less self-efficacy). In contrast, the WAGES condition performed well compared to the group activity condition, with participants reporting more perceived harm after the intervention, and no greater levels of reactance or lessened self-efficacy. These results suggest that WAGES buffered the potential negative effects found in the information only condition. However, though the WAGES and group activity conditions did not differ at the follow-up phase on perceived harm, this effect was due to the group activity condition increasing perceived harm at follow-up and not due to WAGES decreasing perceived harm. Thus, we can conclude that WAGES produces an earlier and sustained effect on recognizing harm compared to the other conditions. It is possible that in completing the PHES scale multiple times, participants who had not received information about gender inequity (i.e., group activity) became sensitized to the issue, resulting in increased perceived harm at follow-up. Finally, although participants in the information only condition consistently reported fewer behavioral intentions, the WAGES and the group activity conditions did not differ in Study 1, but showed the predicted benefit of WAGES in Study 2. At the very least, these results suggest that providing gender inequity information without experiential learning has negative effects on behavioral intentions, and that WAGES provides a way to present gender inequity information without producing these negative effects.

Our results stand in contrast to research on other interventions that rely on information only. For example, Fehr and Sassenberg (2009) and Becker and Swim (2012) found that merely providing information about the harms of benevolent sexism reduced endorsement of benevolently sexist beliefs. Yet, information about the harms of benevolent sexism may be less threatening than information about harms of everyday sexism. Learning about the patronizing

and condescending nature of benevolent sexism may be eye-opening; by contrast, learning about the cumulative effects of minor incidents of sexism on one's potential for workplace success may be threatening to those who are about to enter the workforce (i.e., undergraduate students in our sample). Thus, we expected and found that providing information only elicited more reactance and less self-efficacy compared to WAGES and the group activity, which in turn explained why information only did not increase PHES or behavioral intentions. WAGES, on the other hand, provided this information in a way that neither elicited reactance nor impaired self-efficacy.

Overall, the results of the present investigation are consistent with our prior findings (e.g., Zawadzki et al., 2012, 2014) and point to the power of experiential learning for presenting information about everyday sexism in a way that positively influences awareness, attitudes, and behavioral intentions. Notably, our model accounted for substantive amounts of variance in our outcomes of interest – 23% in perceived harm and 35% in behavioral intentions. Additionally, whereas prior research has focused on the effectiveness of interventions for increasing the acknowledgement of sexism in broader society (e.g., Becker & Swim, 2011, 2012; Case, 2007; Zawadzki et al., 2014), we extend this work by showing WAGES' effectiveness for increasing the recognition of harm of seemingly minor (and often discounted) everyday sexist incidents and for increasing behavioral intentions to seek out and discuss information about gender inequity.

Limitations and Future Directions

Our results show promising effects with undergraduates, who provided a feasible way to conduct the randomized control studies. Given that the content of WAGES-Academic was designed for use with academic faculty and administrators, the fact that we found evidence of WAGES' effectiveness with undergraduates demonstrates the power of the intervention. Future work will collect evaluation data from college and university faculty and administrators.

Because our sample consisted of largely non-Hispanic white participants, we must be cautious before generalizing to other racial or ethnic groups. That said, we would not anticipate the effectiveness of WAGES to be moderated by race or ethnicity because the biases illustrated by WAGES reflect biases experienced by varied marginalized groups. All of the game items are designed to reflect experiences of women from diverse groups, and many are relevant to other marginalized groups (e.g., men from underrepresented groups). The only items that are explicitly concerned with a specific group of women are those that pertain to mothers. Furthermore, post-game discussion addresses intersections of social identity as they relate to marginalization, thus encompassing experiences beyond gender. Because it is important for sexism interventions to raise awareness regarding the varying manifestations of oppression across different intersecting social identities (Shields, 2008), in future research we plan to test the effectiveness of WAGES for increasing the awareness and understanding of the multiple experiences of sexism that vary across different marginalized identities.

Finally, future research should examine whether the effects of WAGES are sustained over longer periods of time. It would also be advantageous to examine downstream consequences. For instance, WAGES may limit reactance to additional intervention efforts and/or increase support for the implementation of strategies for producing gender equity. WAGES may also influence other behaviors besides the behavioral intentions measured in the current study. In other work, for instance, we are testing whether WAGES increases the detection and reporting of subtly sexist acts. Furthermore, WAGES may increase the extent to which everyday sexist incidents are challenged and may reduce engagement in sexist behavior. These small changes may accumulate over time to have larger implications for improving the climate within academic departments.

Conclusion

The frequent and mundane nature of everyday sexism makes it difficult to recognize how small effects accumulate over time to produce notable gender disparities (Swim et al., 2001; Valian, 1998). Everyday sexist incidents are likely to remain unchallenged if they are not perceived as harmful. Insofar as policy is concerned, our results with WAGES and other studies on interventions to reduce sexism underscore the importance of educating about the immediate and cumulative harms of subtle sexism. Notably, our results show the importance of appropriately framing educational material on sexism. Presentation of facts alone cannot be expected to have the desired impact. With some aspects of sexism (e.g., benevolent sexism as noted above), raising awareness of the problem may be sufficient, but information about other forms of sexism may encounter resistance unless presented in a way that invites dialog, as through experiential learning formats like WAGES. Overall, research on WAGES testifies to its effectiveness as an evidence-based tool for increasing the recognition of sexism in its various manifestations (Shields et al., 2011; Zawadzki et al., 2012, 2014). Such recognition is critical for producing effective social change within organizations, in particular, increasing male allies and confronting behavior (e.g., Drury & Kaiser, 2014). Thus intervention programs aimed at reducing sexism and increasing gender equity within organizations (e.g., NSF ADVANCE programs) may benefit from incorporating WAGES or similar experiential learning-based awareness-training strategies (e.g., Case et al., 2014) into their efforts.

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Stephanie A. Shields is Professor of Psychology and Women's Studies at The Pennsylvania State University where she coordinates the dual-title Ph.D. in Women's Studies and Psychology. Her research is at the intersection of human emotion, gender, and feminist psychology. In addition to further development and testing of WAGES, her current work focuses on the micropolitics of emotion in everyday life, perception of emotion regulation in others, and theoretical and methodological issues relevant to integrating an intersectionality of social identities perspective into psychological research.

Table 1

Means (Standard Deviations) of PHES Scores, Behavioral Intentions, Reactance, and Self-efficacy Scores across Intervention Conditions

	Intervention Condition		
	WAGES	Information Only	Group Activity
PHES Scores (Study 1)			
Baseline Phase	4.92 (1.15)[a]	4.87 (1.26)[a]	4.96 (1.32)[a]
Intervention Phase	5.35 (0.85)[b]	4.71 (1.21)[a]	4.94 (1.06)[a]
Follow-up Phase	5.42 (1.09)[b]	4.90 (1.36)[a]	5.28 (1.08)[b]
Behavioral Intentions			
Study 1	4.16 (1.30)[a]	3.65 (1.46)[b]	4.19 (1.40)[a]
Study 2	3.84 (1.52)[a]	3.30 (1.25)[b]	3.38 (1.23)[b]
Process Variables (Study 1)			
Reactance	2.19 (1.00)[a]	2.72 (1.33)[b]	1.92 (0.76)[a]
Self-Efficacy	4.12 (1.28)[a]	3.59 (1.15)[b]	4.01 (1.25)[a]

Note. Differing superscripts indicate that across intervention condition and time (study phase) for PHES scores; and across intervention condition for behavioral intentions, reactance, and self-efficacy scores; cell means significantly differed at least at the $p < .06$ level. Behavioral intentions and process variables were measured at the intervention phase.

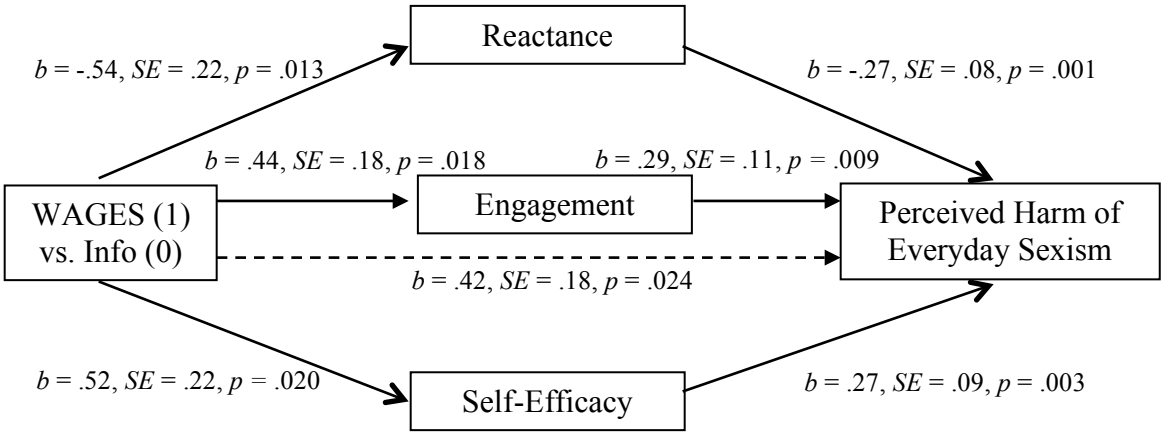

Figure 1. Reactance, self-efficacy, and engagement as mediators of the relation between intervention condition and perceived harm of everyday sexism in Study 1. Info refers to the information only condition. Unstandardized regression weights are presented for each pathway. Total effect: $b = .59$, $SE = .19$, $p = .003$.

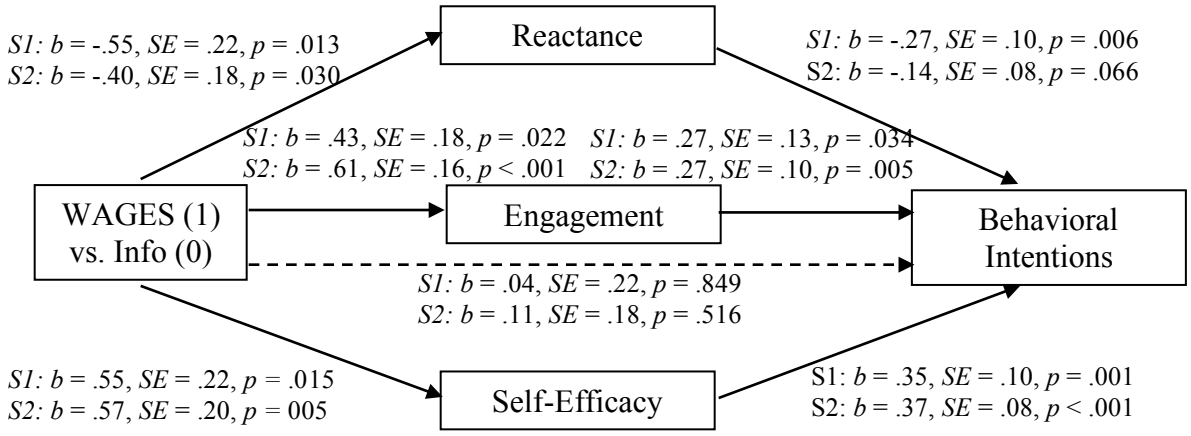

Figure 2. Reactance, self-efficacy, and engagement as mediators of the relation between intervention condition and behavioral intentions for Studies 1 and 2. Info refers to the information only condition. Unstandardized regression weights are presented for each pathway. Regression weights for Study 1 (S1) are presented above the regression weights for Study 2 (S2). Total effect for Study 1: $b = .50$, $SE = .25$, $p = .051$. Total effect for Study 2: $b = .54$, $SE = .20$, $p = .008$.