Sexism and the gender participation gap in political discussions online

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Equal representation of all societal groups in the political discourse is a powerful ideal of democracy. Yet, female voices are grossly underrepresented. Studies focusing on political expression as a form of online political participation (OPP) replicate offline findings: Women overall prefer less visible forms of participation and voice their opinion less in political online debates, while the majority of commenters on online newspapers seems to be male (Bode, 2017; Vochocová et al., 2016; Ziegele et al., 2013). Social, structural, individual, and institutional factors are often cited (Harrison & Munn, 2007). One aspect that has received less attention are the different experiences men and women make online. In a preregistered experiment we investigate how sexism in the form of denying women competence in OPP affects the willingness of political expression in online environments for both men and women.

Theory

The digital environment provides new space for negative experiences. Online incivility (Papacharissi, 2004) or hate speech (Gagliardone et al., 2015, S. 10) negatively influence the perceived discussion climate and the consequent willingness to participate in it (Ziegele & Jost, 2020) as well as the well-being of the targets (Obermaier et al., 2018). Particularly women experience online harassment, if they take part in online environments. This is often attributed to sexism (Döring & Mohseni, 2020; Duggan, 2017). Female politicians (Rheault et al., 2019) and journalists (Gardiner, 2018) become the target of online incivility more frequently compared to their male colleagues. Women report negative reactions to sharing political opinions online in qualitative interviews (Sobieraj, 2018; Vochocová, 2018) and quantitative data supports the notion (Koc-Michalska et al., 2019).

The underrepresentation of female voices and attacks against women who do participate display politics as a masculine space (Schneider & Bos, 2019). It can be assumed that sexist comments in online environments are likely to establish social rules. Based on the theory of normative social behavior, sexism in online political discussions can influence the social norms of OPP in two ways (Rimal & Real, 2005). For one, questioning and attacking women in political discussions online displays a

descriptive social norm of the medium (Flanagin, 2017; Geber & Hefner, 2019). Additionally, these displays bias the perceived norms of the online culture and suggest that women have to expect consequences when voicing their opinions (injunctive norms, Rimal & Real, 2005). Based on previous findings on this theoretical background we predicted that reading sexist comments (vs. benign comments) in a discussion decreases women's likelihood to participate (H1a) and to share their own opinion (H1b) and the decrease is larger for women than for men. We expected that reading sexist comments (vs. benign comments) further increases the expected sanctions for women and the increase is larger for women compared to men (H2). Lastly, we predicted that reading sexist comments (vs. benign comments) decreases the perceived competence for women but not for men (H3). As the younger demographic uses the internet more (Wen et al., 2013), and have more experience with online harassment (Duggan, 2017) we explored the impact of age in our models as a research question (RQ1). Secondary hypotheses and additional research questions can be found in our preregistration[1].

Method

To test the hypothesis we designed a 2 (sexist vs. benign comment) X 2 (self-reported binary gender) online (quasi-)experiment. A sample of 750 participants (M = 44.6, SD = 14.3, 50% female) was recruited from a commercial online access panel, replicating the German population's gender, age, and education make up. Based on 180 participants per cell, we calculated the a priori power at 76% for small (d = 0.2) and at 100% for medium effects (d = 0.5). Participants answered social demographics first, followed by the participation in political discussion online and preregistered controls and moderators. Then, participants were presented at random with one of two stimulus versions. Based on the discussion board of a public broadcasting station in Germany (meta.tagesschau.de), it showed a short article teaser

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[1] https://osf.io/kwh2g/?view_only=26deed40a3d24d71a337f3708224b837

with the user comments located beneath (cf. Figure 1). The teaser featured quotes from a female

scientist on paid parental leave. Both versions showed three neutral comments, but the treatment

condition included an additional comment and replies that openly questioned the scientist's ability.

Users should recognize the sexism but not want to flag or report the posts (Naab et al., 2018). The

dependent variables followed. We used two single items for H1, expected sanctions (H2) were based on

Neubaum & Krämer (2018), and five items assessed perceived competence (H3). Two treatment check

scales measured the recognition of sexist comments (4 items) and perception of a hostile debate climate

against women (8 items). Finally, we assessed the topic relevance for participants and the general

experience with online harassment. All item and scale information is combined in Table 1.

Results

Our treatment checks showed that participants recognized the sexism and perceived a more

hostile climate for women (cf. Figures 2 & 3). Potentially limiting is that the discussion climate was not

perceived hostile above the scale midpoint ($M =$ 4.01, $SD =$ 1.23, 7-point scale). H1a and H1b were not

supported by the data, no significant difference between the treatment and control group or gender

appeared (cf. Figure 4 & 5). The treatment did increase the expected sanctions (b = 0.43, SE = .11, $p <$

.001; R^2 = 0.02), but unconditional of gender, thus H2 was not supported (cf. Figure 6). No support for H3

was found in our data either (cf. Figure 7). In our study, age did not impact the willingness to participate,

but expected sanctions decreased with age ($b = -.19$), suggesting different norms associated with online

discussions. Controlling for the aptitude to participate in online discussions did not change the results,

but the overall low tendency to do so, regardless of gender (Mdn = 2) is a limitation. Analysis of the

prevalence questions show that the experience of online harassment differs by age and the participant's

gender (cf. Figure 8). Further results and implications will be discussed.

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Table 1

Items and Scales	n	M	SD	Mdn	Min	Max	(1)	(2)	(3)	(4)	(5)
(1) Likelihood of participation	750	2.23	1.61	1.00	1	7	-				
(2) Likelihood of opinion expression	750	2.31	1.70	1.00	1	7	0.92	-			
(3) Expexted sanctions	750	2.79	1.49	2.89	1	7	0.09	0.10	**0.89**		
(4) Recognition of attack	750	3.56	1.81	3.75	1	7	0.02	0.01	0.25	*0.94*	
(5) Recognition of hostile climate against women	750	3.33	1.40	3.50	1	7	0.08	0.08	0.36	0.84	**0.85**

Note. Reliabilty shown on the diagonal, bold values are ω, kursive values are Cronbach's α

Figure 1

Stimuli Control (left) and Treatment (right)

Figure 2

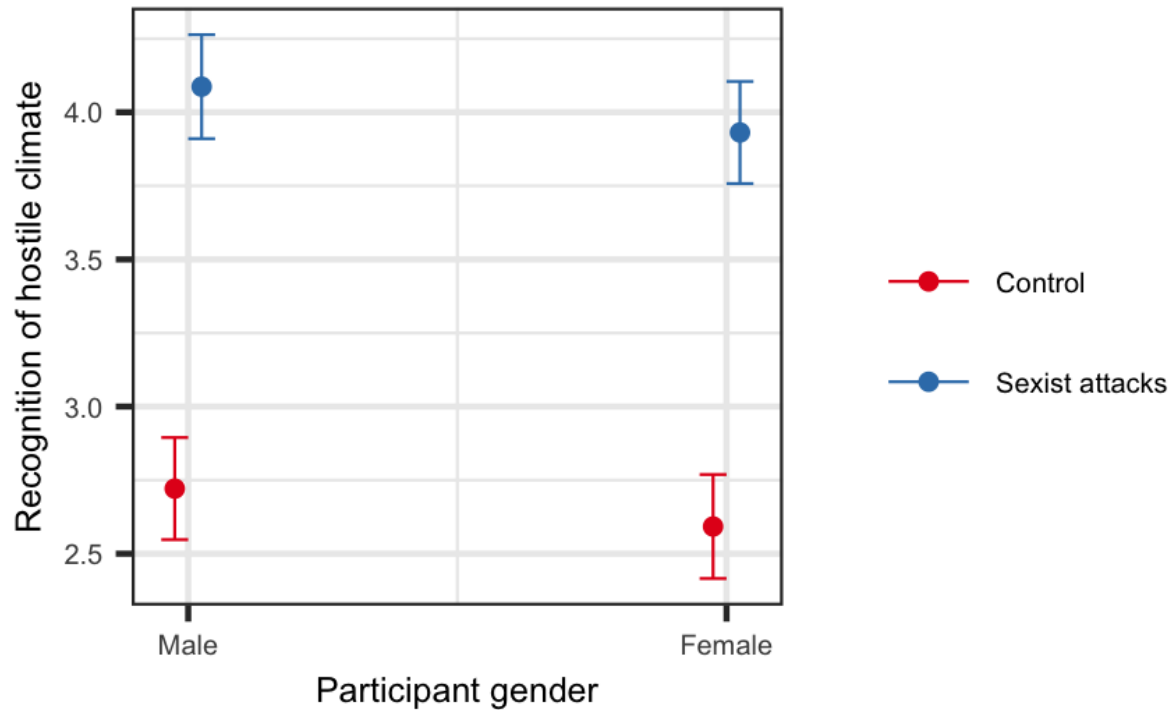*Treatment check 1: Recognition of sexist attacks*
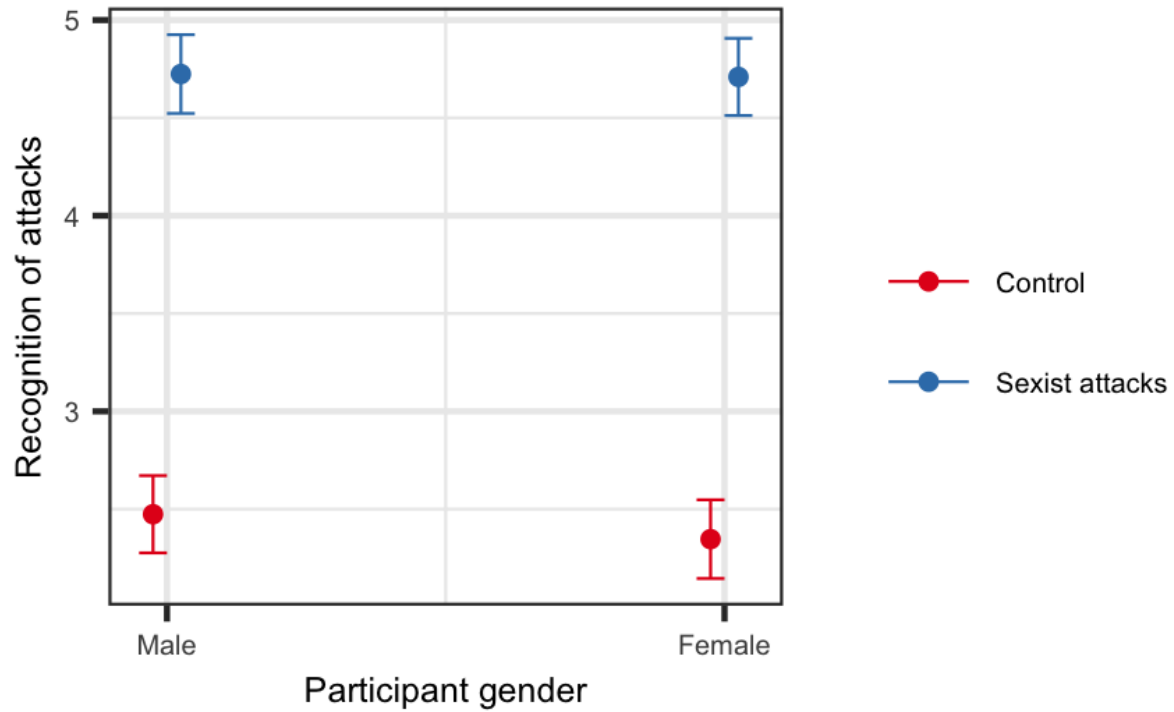
Note. Both predictors were effect-coded before the analysis. Main effect of sexist attack:

$b = 2.31$, 95% CI [2.11, 2.51], $t(746) = 22.68$, $p < .001$. Main effect of participant gender

(female): $b = -0.07$, 95% CI [-0.27, 0.13], $t(746) = -0.70$, $p = .485$.

Interaction effect: $b = 0.11$, 95% CI [-0.29, 0.51], $t(746) = 0.55$, $p = .580$.

Overall model fit: $R^2 = .41$, 90% CI [0.36, 0.45], $F(3,746) = 171.58$, $p < .001$.

Figure 3

Treatment check 2: Recognition of hostile climate against women

Note. Both predictors were effect-coded before the analysis. Main effect of sexist attack:

$b = 1.35$, 95% CI [1.18, 1.53], $t(746) = 15.14$, $p < .001$. Main effect of participant gender

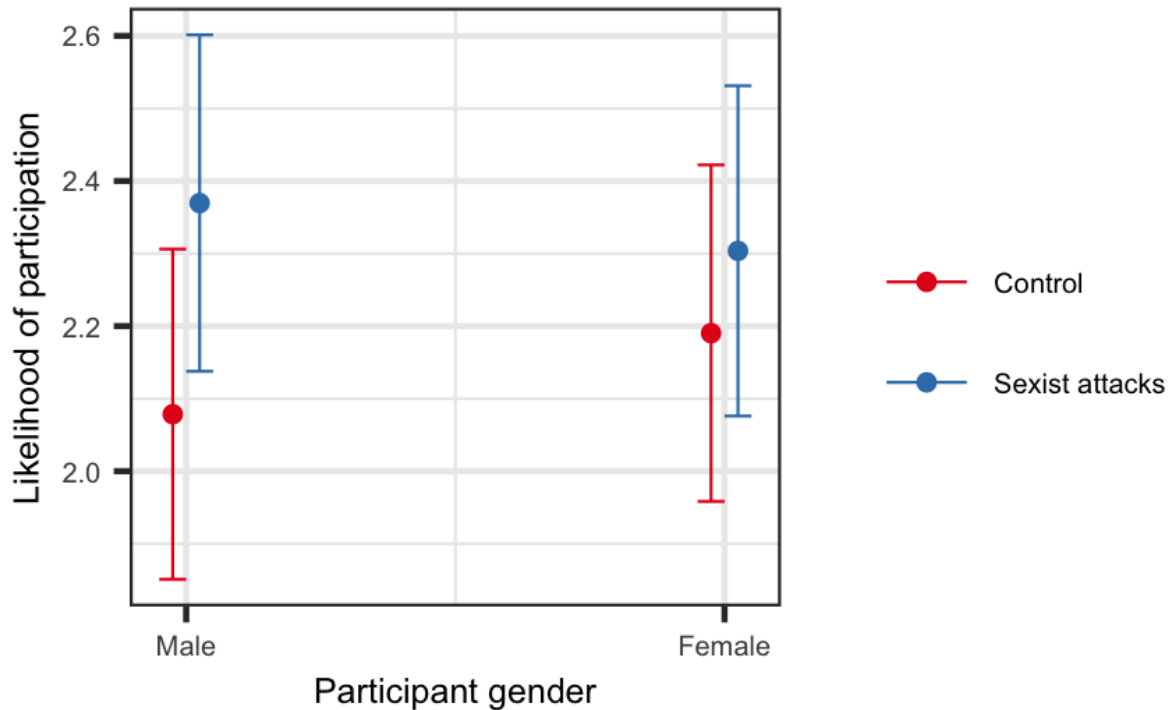(female): $b = -0.14$, 95% CI [−0.32, 0.03], $t(746) = -1.59$, $p = .112$.

Interaction effect: $b = -0.03$, 95% CI [−0.38, 0.32], $t(746) = -0.15$, $p = .881$.

Overall model fit: $R^2 = .24$, 90% CI [0.19, 0.28], $F(3,746) = 76.95$, $p < .001$.

Hypotheses

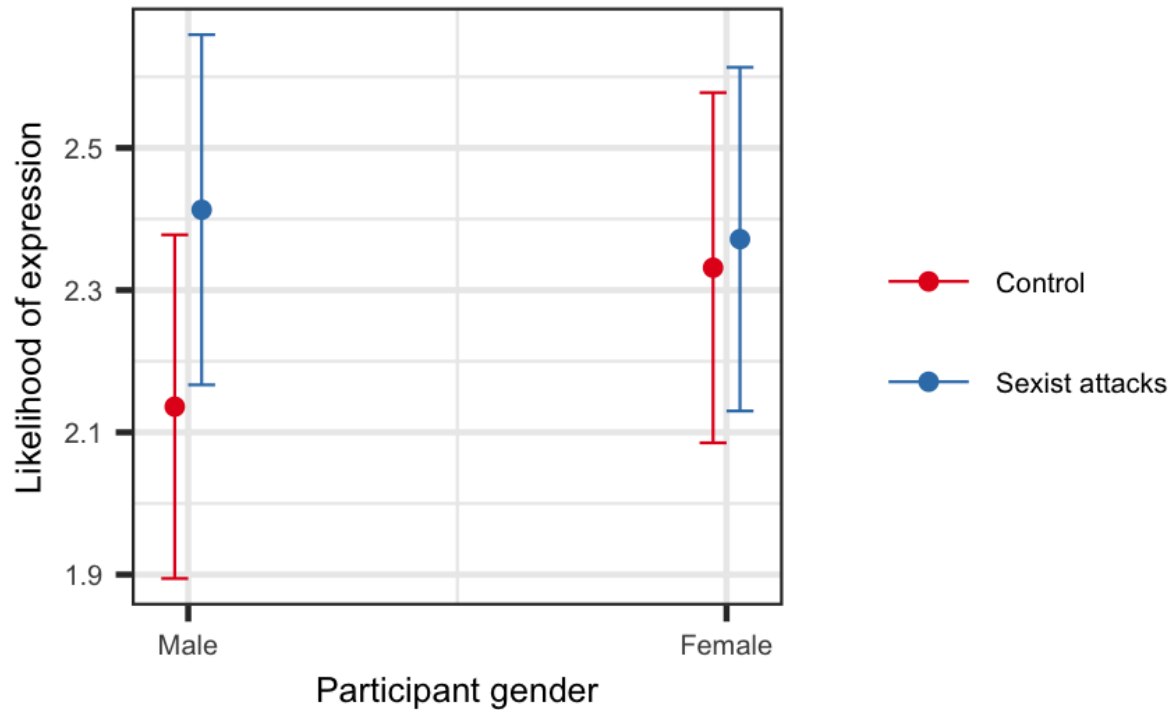**Figure 4**

H1a: Likelihood of participation

Note. Both predictors were effect-coded before the analysis. Main effect of sexist attack:

$b = 0.20$, 95% CI $[-0.03, 0.43]$, $t(746) = 1.73$, $p = .085$. Main effect of participant gender

(female): $b = 0.02$, 95% CI $[-0.21, 0.25]$, $t(746) = 0.20$, $p = .845$.

Interaction effect: $b = -0.18$, 95% CI $[-0.64, 0.28]$, $t(746) = -0.76$, $p = .449$.

Overall model fit: $R^2 = < .01$, 90% CI $[0.00, 0.01]$, $F(3,746) = 1.20$, $p = .309$.
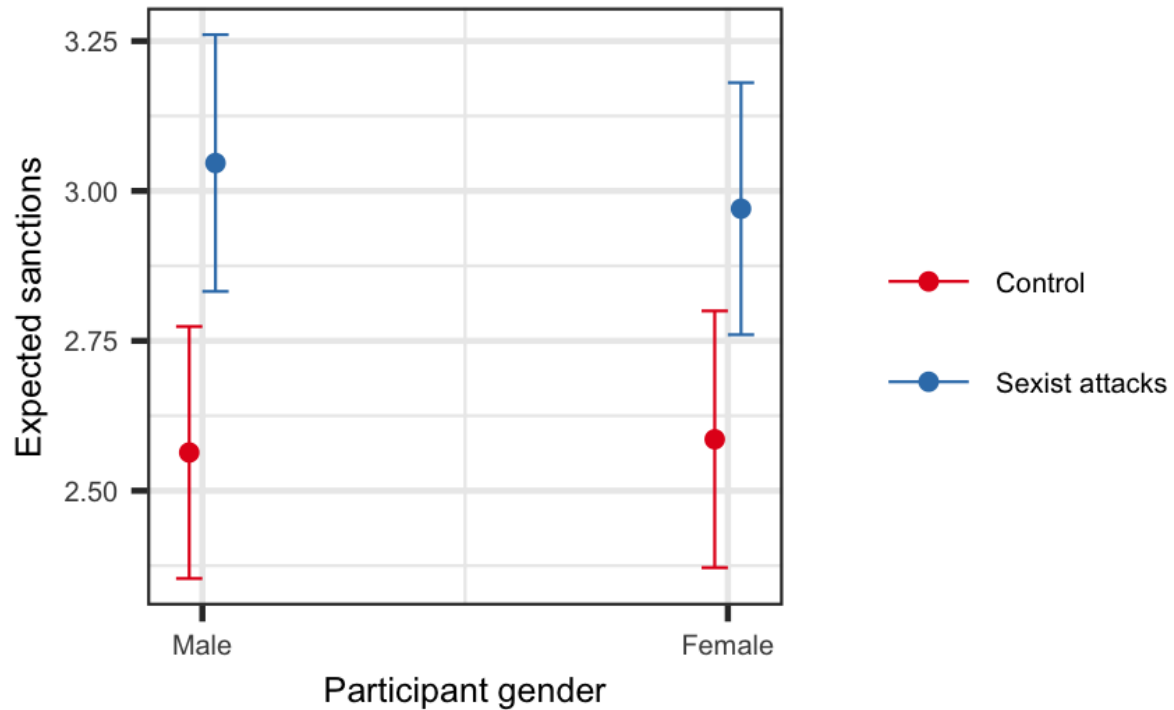
Figure 5

H1b: Likelihood of opinion expression

Note. Both predictors were effect-coded before the analysis. Main effect of sexist attack:

$b = 0.16$, 95% CI $[-0.09, 0.40]$, $t(746) = 1.27$, $p = .203$. Main effect of participant gender

(female): $b = 0.08$, 95% CI $[-0.17, 0.32]$, $t(746) = 0.62$, $p = .536$.

Interaction effect: $b = -0.24$, 95% CI $[-0.73, 0.25]$, $t(746) = -0.95$, $p = .342$.

Overall model fit: $R^2 =< .01$, 90% CI $[0.00, 0.01]$, $F(3,746) = 0.98$, $p = .402$.
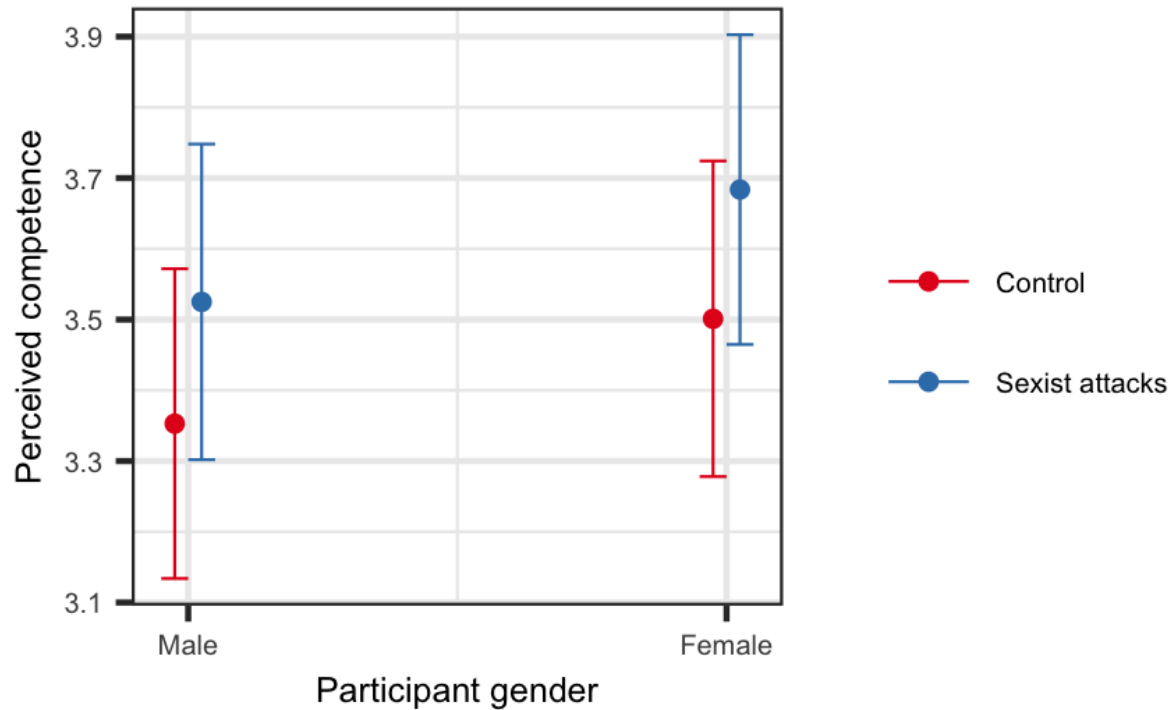
Figure 6

H2: Expected sanctions

Note. Both predictors were effect-coded before the analysis. Main effect of sexist attack:

$b = 0.43$, 95% CI [0.22, 0.65], $t(746) = 4.01$, $p < .001$. Main effect of participant gender

(female): $b = -0.03$, 95% CI [−0.24, 0.19], $t(746) = -0.25$, $p = .803$.

Interaction effect: $b = -0.10$, 95% CI [−0.52, 0.33], $t(746) = -0.45$, $p = .650$.

Overall model fit: $R^2 = .02$, 90% CI [0.01, 0.04], $F(3,746) = 5.43$, $p = .001$.

Figure 7

H3: Perceived competence

Note. Both predictors were effect-coded before the analysis. Main effect of sexist attack:

$b = 0.18$, 95% CI $[-0.04, 0.40]$, $t(746) = 1.57$, $p = .116$. Main effect of participant gender

(female): $b = 0.15$, 95% CI $[-0.07, 0.37]$, $t(746) = 1.36$, $p = .174$.

Interaction effect: $b = 0.01$, 95% CI $[-0.43, 0.45]$, $t(746) = 0.05$, $p = .963$.

Overall model fit: $R^2 = .01$, 90% CI $[0.00, 0.01]$, $F(3,746) = 1.47$, $p = .221$.

Figure 8

Prevalence of online harassment