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## Social exclusion: put into context

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# Chapter 4

Information on sexism can induce feelings of social exclusion among  
women

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Gender inequality remains a pervasive problem in society. Although hostile and openly sexist ideas and attitudes towards women have been on the decline for a long time (Glick & Fiske, 2011; Swim & Cohen, 1997), gender inequality in society remains. This suggests that although sexism is less visible, women are still structurally disadvantaged (Barreto & Ellemers, 2005; Swim, Aikin, Hall, & Hunter, 1995; Vinnicombe, Atewologun, & Battista, 2019). Indeed, women often hold less powerful positions in society compared to men, and tend to get paid less for the same jobs (European Commission, 2019; Petersen & Morgan, 1995), for example in academia (De Goede, Van Veelen, & Derks, 2016).

The prevalence of inequality and sexism are often discussed in the media. This increases awareness of the problem (i.e., it improves “bias literacy”; Pietri et al., 2017) and can be a prerequisite to change things for the better in the long run. Still, the initial impact that exposure to such information may have on women’s well-being has received relatively little attention. The current article tests whether information about the prevalence of sexism in society could negatively affect women’s well-being. More specifically, based on the social exclusion literature we predict that such information about discrimination against one’s group could induce or intensify feelings of social exclusion, and threaten the fulfilment of people’s fundamental needs of belonging, self-esteem, control, and purpose in life (Williams, 2007). Being made aware or reminded of the prevalence of sexism, gender inequality, or the gender pay gap may thus raise awareness of the problem, but also trigger immediate feelings of social exclusion.

### **Social Exclusion and Fundamental Needs**

When people feel excluded (i.e., rejected, neglected, or not fully accepted), this gravely reduces their well-being (Wesselmann & Williams, 2017; Williams & Nida, 2016). People have a fundamental need to belong to groups and form relationships with others (Baumeister & Leary, 1995). When these ties with others are threatened, people experience a reduced sense of belonging, but also their self-esteem, sense of control, and their idea of purpose in life are negatively affected (Leary, 2001; Williams, 2007). The experience of being excluded also comes with negative affect (Williams, 2009, Williams & Nida, 2016), and immediately triggers hurt feelings, a reaction that has been likened to physical pain (Eisenberger, Jarcho, Lieberman, & Naliboff, 2006).

For women, information about the prevalence of sexism may activate the perception that they are personally more likely to experience rejection in society. This threat of rejection

is likely to be registered, as research has shown that people constantly monitor their social environments for signs that they may be excluded, to be able to avoid this (Kerr & Levine, 2008; Wesselmann, Bagg, & Williams, 2009; Williams, 2009). Even rather minimal and ambiguous signs that threaten inclusion (e.g., a brief silence in a conversation, someone not making eye contact) are quickly attended to, and immediately trigger the negative state of exclusion (Koudenburg, Postmes, & Gordijn, 2011; Williams, 2009; Wirth, Sacco, Hugenberg, & Williams, 2010). If even such minimal signs elicit exclusion, explicit information about the prevalence of sexism, which is indicative of possible personal rejection in society, is very likely to induce a sense of exclusion as well, along with the associated threatened fundamental needs and negative feelings.

Interestingly, this connection between exposure to information on sexism and social exclusion has not been addressed empirically. Some research suggests, however, that information that affirms the prevalence of sexism may negatively affect women in other ways. For example, it has been shown that the more female participants received information that discrimination was the cause of rejection in a job selection procedure, the more their well-being was harmed (Stroebe, Barreto, & Ellemers, 2010b). Other research has highlighted threats to women's social identities as a negative outcome of watching a video intervention that aimed to increase awareness of gender discrimination in technical professions (Pietri et al., 2019). In the current research, we study possible immediate negative effects on the fundamental human motives to avoid exclusion, experience belonging, control, self-esteem, and purpose in life, and feel positive (Williams, 2009). Instead of testing the impact of information that one has personally been discriminated against (Stroebe et al., 2010b) or about sexism in specific professions (Pietri et al., 2019), the current article thus tests the impact of information about the overall prevalence of gender discrimination on social exclusion.

Moreover, the current study investigated whether information about sexism could reinforce the expectation to be treated unequally (see Stroebe, Barreto, & Ellemers, 2010a) and discourage women to strive for equal positions. Among members of stigmatized groups, career expectations and motivations have previously been shown to be reduced by discrimination, or perceptions that others have negative stereotypes about them (Stangor & Sechrist, 1998; Van Laar, Derks, & Ellemers, 2013; Van Laar, Derks, Ellemers, & Bleeker, 2010). By activating the perception that women are discriminated against in society, information

about sexism may similarly reduce career expectations and motivations. In the current study, we also test whether the state of exclusion, negative feelings, and reduced need fulfilment that women may experience after exposure to information on sexism, may in part explain the feelings of demotivation in the job market (see Lustenberger & Jagacinski, 2010). Finally, we test whether reduced career expectations also contribute to the lowered career motivation.

To summarize, the current article tests women's immediate reactions to exposure to information on sexism in society. Based on findings from the social exclusion literature, we predict that being informed or made aware of sexism in society can induce feelings of exclusion, and consequently harm the fundamental needs and evoke negative feelings. We also test whether women's expectations and motivation in the job market are negatively affected, and explore if women's feelings of exclusion, need threats, feelings, and/or expectations mediate the effect on career motivation. First, a correlational study (Study 4.1) tests whether women with stronger perceptions that sexism is present in society also experience stronger personal feelings of exclusion and lowered expectations and motivation in the job market. Next, in Studies 4.2 and 4.3, we manipulate the information that participants are exposed to, and so test experimentally whether exposure to information about the prevalence of sexism, in the form of fictitious research results (Study 4.2) or actual newspaper articles (Study 4.3), directly induces feelings of exclusion, and the negative career effects. In all studies, all exclusion criteria, measures, and conditions (where applicable) are reported, and no analyses were made before data collection was terminated. All studies were approved by the Psychology Research Ethics Committee of Leiden University.

### **Study 4.1**

Being informed or aware about the prevalence of sexism in society may intensify feelings of being socially excluded. As a first step of testing this possible impact of awareness of sexism, Study 4.1 tested whether female participants who currently had a stronger perception that women are discriminated against in society, also experienced a stronger sense of personal exclusion, negative feelings, and threats to their fundamental needs. Moreover, we tested whether this perception was negatively related to expectations and motivation in the job market.

### **Methods**

**Participants and design.** Through the online Prolific network, 256 British female participants between 18 and 50 years old were recruited. As this study also assessed career

expectations and motivations, only participants with at least a Bachelor's degree were selected to participate, to increase the possibility of obtaining a sample that would be relatively ambitious to achieve high positions in the job market. Career ambition turned out to be reasonably high in the sample ( $M = 4.88$ ,  $SD = 1.60$ , on a seven-point scale)<sup>12</sup>. Seven respondents were removed from the data set, because they did not finish the entire survey ( $n = 5$ ), or did not identify as female ( $n = 2$ ). The remaining sample of  $N = 249$  (mean age 32.88,  $SD = 7.49$ ), had sufficient power ( $\beta = .80$ ) to detect correlations of at least  $\rho = .18$ , with  $\alpha = .05$ . The preregistration for Study 4.1 can be found at <https://osf.io/gqw7s>.

**Procedure and materials.** After agreeing with the consent form, participants answered a series of questions (full questions can be found in the preregistration for this study). All items were answered on a 7-point scale with 1 = *Totally disagree*, 7 = *Totally agree*, unless noted otherwise. First, participants indicated their agreement with five statements, measuring the extent to which they perceived society to be sexist (e.g., “Discrimination against women is still a problem”,  $\alpha = .85$ , adapted from the modern sexism scale, Swim et al., 1995; as in Barreto & Ellemers, 2005).

Then, two items measured participants' sense of exclusion (e.g., “As a woman, I am excluded by society”,  $\alpha = .93$ ). With two items each, threats to the four needs were measured (adapted from Lelieveld, Moor, Crone, Karremans, & Van Beest, 2013): belonging (e.g., “As a woman, I do not really feel like I belong in society”), control (e.g., “As a woman, I experience personal control over where I end up in society”), self-esteem (e.g., “Being a woman in this society makes me feel good about myself”), and meaningful existence (e.g., “Being a woman, I feel invisible in society”). As commonly done in social exclusion research, all items were collapsed into one measure of need threats ( $\alpha = .90$ ; see Gerber, Chang, & Reimel, 2016). Feelings were measured by agreeing to the statement: “My position as a woman in society makes me feel...”, “sad”, “angry”, “hurt”, “happy”, “elated”, “cheerful”, with the last three items reverse coded ( $\alpha = .90$ , adapted from Van Beest & Williams, 2006).

Next, participants' expectations and motivation in their careers were measured. In an open-ended question, participants were asked to indicate the highest position they would like to hold in working life or society, to assure they had their own preferred positions in mind

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<sup>12</sup> Career ambition was not significantly related to perceptions of society as sexist,  $r = .06$ ,  $p = .337$ .

when reflecting on their expectations and motivations<sup>13</sup>. They proceeded to indicate their expectations of achieving this position considering gender discrimination (e.g., “Personally, I think that compared to an equally skilled male candidate, my chances of achieving this position are much smaller”,  $\alpha = .74$ ), and the extent to which they were motivated about achieving this position (“As a woman, how do you feel about trying to acquire this position?” answer options 1 = *Demotivated*, 7 = *Motivated*, and 1 = *Discouraged*, 7 = *Encouraged*,  $\alpha = .77$ ). To check whether the participants that were collected through the Prolific panel were at least moderately ambitious in their career, participants indicated their career ambition (“In general, how ambitious do you see yourself with regards to your career?”). Finally, participants indicated their age and gender, and were thanked, debriefed, and paid for participating.

## Results

**Perceptions of society as sexist.** As predicted, perceiving society as more sexist was strongly and positively correlated with personal feelings of exclusion from society,  $r = .53, p < .001$ , increased need threats,  $r = .59, p < .001$ , and negative feelings,  $r = .55, p < .001$ . Increased perceptions of society as being sexist were strongly and negatively correlated with expectations of acquiring a high job position despite gender discrimination,  $r = -.55, p < .001$ , and motivation to acquire this position,  $r = -.36, p < .001$ . All correlations between these variables can be found in Table 4.1.

**Exploratory mediation analysis.** In addition to our pre-registered analyses, we also tested whether the relation between perceiving society as sexist and participants’ lower motivation in the job market, was mediated by their sense of exclusion, need threats, feelings, and expectations of success in the job market. When all these factors were simultaneously added in a mediation analysis with 10,000 bootstrap resamples, two indirect pathways were significant (see Figure 4.1): Both participants’ expectations,  $b = -0.20, 95\% \text{ CI } [-0.31 - -0.11]$ , and their need threats,  $b = -0.20, 95\% \text{ CI } [-0.40 - -0.03]$ , significantly mediated the relationship between perceiving society as sexist, and motivation in the job market. The indirect effects through exclusion,  $b = -0.09, 95\% \text{ CI } [-0.22 - 0.03]$ , and negative feelings,  $b = -0.09, 95\% \text{ CI } [-0.23 - 0.04]$ , were not significant.

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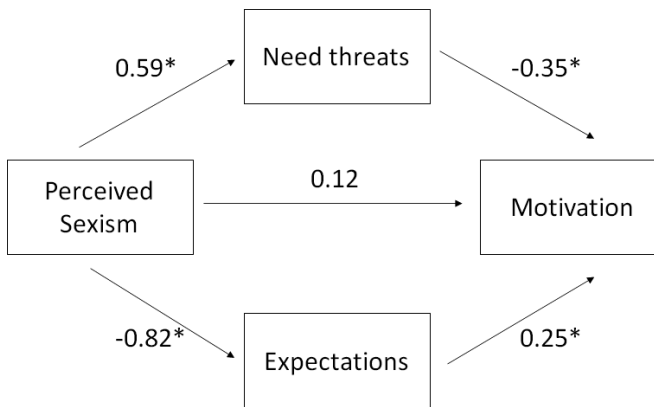
<sup>13</sup>In the open answers, 14 of 249 participants said they did not want to achieve any position higher up in the work place/society. These participants were still included in the analyses. Excluding them yielded similar or even stronger effects, but did not lead to different conclusions.



**Table 4.1***Correlation Table (Study 4.1)*

	1	2	3	4	5
1. Perceived Sexism					
2. Exclusion	.53				
3. Need threats	.59	.78			
4. Negative feelings	.55	.61	.80		
5. Expectations	-.55	-.47	-.55	-.50	
6. Motivation	-.36	-.51	-.58	-.52	.51

Note. All correlations are significant with  $p < .001$

**Figure 4.1***Significant Mediators of the Relation Between Perceived Sexism and Motivation (Study 4.1)*

Note. Significant beta-weights ( $p < .05$ ) are indicated with an \*

## Discussion

A first correlational study shows that perceiving society as a sexist environment was associated with an increased sense of feeling excluded from society, negative feelings, and threatened fundamental needs. Moreover, perceiving society as sexist was related to lower expectations of career achievement and reduced career motivation. An exploratory mediation analysis further showed that both participants' threatened fundamental needs, and their lowered expectations of success contributed to why they felt less motivated about their careers.

It is important to emphasize that the correlational nature of this study does not allow the inference of any causal order of the effects. It has shown that increased perceptions of the prevalence of sexism in society are associated with increased experiences of social exclusion, and reduced career expectations and motivations. While increased perceptions that women are discriminated against in society may cause part of the reported negative effects, the reverse may also be true: Personal feelings of exclusion may contribute to the perception that women as a group are discriminated against in society. Study 4.2 manipulated the information that participants received, to determine whether being informed about sexism in society directly resulted in these negative effects.

#### **Study 4.2**

The main objective of Study 4.2 was to test whether exposure to information on sexism in society would directly induce feelings of social exclusion, threatened needs, negative feelings, and reduced career expectations and motivation, compared to a control condition in which no information was provided. But additionally, exposure to information on sexism was compared to a condition in which participants received information that denied sexism in society. Exposure to information that denies sexism was a relevant comparison, because this denial (i.e., the idea that sexism is a thing of the past, that is no longer relevant in today's society) is an idea that is directly opposed by information about the prevalence of sexism.

Participants' reactions to denials of sexism could go two ways. First, denials of sexism may affect women as negatively as information on sexism. Denying the occurrence of sexism in society is considered a form of *modern sexism* (Swim et al., 1995) that implies that women themselves are somehow responsible and/or deserving of an inferior position in society (Crocker, Major, & Steele, 1998). Denials of sexism also challenge the necessity to improve women's position (Barreto & Ellemers, 2015; Becker & Swim, 2011). These implications may make women feel excluded from society, resulting in threatened needs, negative feelings, and lowered career expectations and motivation. In line with this possibility, previous research has shown that exposure to denials of sexism can induce fear and insecurity in women (Barreto & Ellemers, 2005).

Alternatively, however, denials of sexism may not affect women negatively. There is some empirical evidence that members of marginalized groups have higher overall well-being when they deny (vs. acknowledge) the occurrence of discrimination, because it satisfies their need to believe in a just world (Bahamondes, Sibley, & Osborne, 2019; Napier, Suppes, &

Bettinsoli, 2020). Moreover, denials of sexism explicitly communicate that women are *not* discriminated against in society, and may thus signal an inclusive environment that does not trigger the exclusion response. From this perspective, results in the denial of sexism condition would be similar to those in the control condition.

## Method

**Participants and design.** The between-subjects study with three conditions (information on sexism vs. denial of sexism vs. control condition) was conducted in the Leiden University lab, among 159 female participants. Two participants were removed from the analyses for not completing the survey, or not identifying as female. With the remaining sample of  $N = 157$  (mean age 20.59,  $SD = 3.09$ ), a power of  $\beta = .80$ , and  $\alpha = .05$ , the study had sufficient power to detect effects of  $f = 0.25$ , or  $\eta_p^2 = 0.06$ . The preregistration for this study can be found at <https://osf.io/pckz9>.

**Procedure and materials.** After entering the lab and agreeing with the consent form, participants in the information on sexism and denial of sexism condition read the results of a fictional prior study. In these conditions, participants read, respectively, that the study showed that a) men and women have unequal/equal chances of achievement, b) discrimination against women is still/no longer a problem, c) the fact that few women hold high positions in organizations is due to discrimination/other factors than discrimination, d) in Dutch society men and women are generally treated unequally/equally, and e) women are often/almost never treated in a sexist manner. This method was adapted from Barreto and Ellemers (2005), who presented these modern sexist statements as the opinion of most men/women, according to a previous study. As the ingroup/outgroup source of these ideas was less relevant in this study, the statements were simply presented as findings from a study here. To strengthen the manipulation, participants were asked to summarize in a couple of sentences what the results of the study were, and additionally were given 30 seconds to think of what the results meant for them personally<sup>14</sup>. Participants in the control condition answered the questions below without receiving any information about the fictitious study, so women's baseline state could be assessed in the absence of exposure to any information or mention of sexism.

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<sup>14</sup>These instructions were added, after the same manipulation without these instructions yielded only null effects among a Prolific sample (preregistered here: <https://osf.io/anfh8>). Without these instructions, the participants possibly clicked through without seriously attending to the information in the manipulation.

All participants indicated their sense of exclusion ( $\alpha = .90$ ), need threats ( $\alpha = .86$ ), and feelings ( $\alpha = .93$ ). Questions were largely the same as in Study 4.1, except that the phrase “as a woman” was removed from the questions in all conditions, to avoid salience of participants’ gender identity in the control condition. When necessary for the understanding of the question, this phrase was replaced with the more general “(given) my position in society”. The exact formulation of each of the questions can be found in the preregistration of this study. Finally, participants were asked to think of the highest possible job they would want to achieve after graduating, and answered the same questions on expectations ( $\alpha = .71$ ), and motivation ( $\alpha = .72$ ), that were used in Study 4.1. At the end of the study, participants were thanked, debriefed, and were paid for participation.

## Results

Results of a series of One-way ANOVAs (Table 4.2) and contrast analyses (Table 4.3) support all hypotheses. First, the manipulation consistently impacted participants’ sense of exclusion, need threats, and feelings. It also changed their expectations of success in the job market, and their motivation to achieve high positions in the job market. More importantly, the simple contrasts demonstrate that in the information on sexism condition, exclusion, need threats, and negative feelings were increased relative to the control condition, and also relative to the denial of sexism condition. Moreover, expectations of success in the job market and motivation towards achieving a high position were decreased. There were no significant differences on any of these factors between the denial of sexism and the control condition.

**Table 4.2**

*One-way ANOVA and Simple Contrast Results, Including Means and SDs (Study 4.2)*

	<i>M (SD)</i>			<i>Statistics</i>		
	Information on sexism	Denial of sexism	Control	<i>F</i> (2, 154)	<i>p</i>	$\eta_p^2$
Exclusion	3.38 <sup>a</sup> (1.19)	1.81 <sup>b</sup> (1.16)	1.63 <sup>b</sup> (0.96)	39.15	< .001	.34
Need threats	3.43 <sup>a</sup> (0.86)	2.54 <sup>b</sup> (0.93)	2.67 <sup>b</sup> (0.90)	14.78	< .001	.16
Negative feelings	3.89 <sup>a</sup> (1.40)	2.47 <sup>b</sup> (1.20)	2.38 <sup>b</sup> (0.86)	27.28	< .001	.26
Expectations	4.20 <sup>a</sup> (1.43)	4.78 <sup>b</sup> (1.55)	4.96 <sup>b</sup> (1.46)	3.76	.026	.05
Motivation	4.84 <sup>a</sup> (1.27)	5.42 <sup>b</sup> (1.16)	5.40 <sup>b</sup> (1.10)	4.10	.019	.05

*Note:* Different superscripts within rows indicate significant differences at  $p < .05$ .

**Table 4.3**

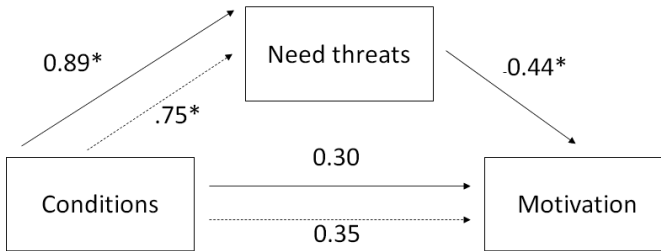
*Statistics for the Contrasts Between Conditions: 1 = Information on Sexism, 2 = Denial of Sexism, and 3 = Control (Study 4.2)*

		Statistics		
		<i>F</i> (1, 154)	<i>p</i>	<i>d</i>
Exclusion	Contrast 1-2	64.47	< .001	-1.61
	Contrast 1-3	52.54	< .001	-1.33
	Contrast 2-3	0.67	.414	-0.17
Need threats	Contrast 1-2	18.22	< .001	-0.85
	Contrast 1-3	25.58	< .001	-0.99
	Contrast 2-3	0.59	.433	0.15
Negative feelings	Contrast 1-2	43.07	< .001	-1.30
	Contrast 1-3	38.79	< .001	-1.09
	Contrast 2-3	0.13	.715	-0.08
Expectations	Contrast 1-2	6.86	.010	0.53
	Contrast 1-3	4.05	.046	0.39
	Contrast 2-3	0.38	.537	0.12
Motivation	Contrast 1-2	6.00	.015	-0.48
	Contrast 1-3	6.30	.013	-0.47
	Contrast 2-3	0.00	.961	0.01

**Exploratory analysis.** An exploratory mediation analysis tested whether lower career motivation in the information on sexism condition, was mediated by feelings of exclusion, need fulfilment, negative feelings, and/or career expectations. As there were three conditions, the indirect pathways were tested for the information on sexism vs. denial of sexism contrast, and the information on sexism vs. control condition contrast. The PROCESS macro was used to dummy code these contrasts to fit in one model (see Hayes & Preacher, 2014) with 10,000 bootstrap resamples, and all mediators added simultaneously. Women's career expectations did not mediate the effect of information about sexism on career motivation, either compared to the denial of sexism,  $b = 0.07$ , 95% CI [-0.01 – 0.24], or the control condition,  $b = 0.09$ , 95% CI [-0.01 – 0.29]. Neither did feelings of exclusion,  $b = -0.21$ , 95% CI [-0.58 – 0.19] and  $b = -0.24$ , 95% CI [-0.64 – 0.21], respectively, or negative feelings,  $b = 0.03$ , 95% CI [-0.41 – 0.45] and  $b = 0.03$ , 95% CI [-0.44 – 0.45], respectively. However, the indirect effect of sexism information on career motivation was significant through need threats (see Figure 4.2), both compared to the denial of sexism,  $b = 0.40$ , 95% CI [0.10 – 0.82], and the control condition,  $b = 0.34$ , 95% CI [0.07 – 0.73]. This suggests that information on sexism lowers women's career motivation in part because it threatens their basic needs.

**Figure 4.2**

*Significant Mediators of the Relation Between Conditions and Motivation (Study 4.2)*



→ = information on sexism vs. denial of sexism

-.-> = information on sexism vs. control condition

*Note.* Significant beta-weights ( $p < .05$ ) are indicated with an \*

## Discussion

Results from Study 4.2 demonstrated that exposure to information about the occurrence of sexism in society increased women’s feelings of exclusion from society. This exposure also resulted in threatened fundamental needs and more negative feelings. Moreover, it reduced expectations to acquire high positions in the job market despite gender inequality, and lowered motivation to attain such positions. An exploratory mediation analysis did not support the idea that the negative effect of exposure to information about sexism on career motivation was caused by reduced expectations of what was achievable in the job market. Instead, the negative effect on motivation could partly be explained by the experience of threats to the needs of belonging, self-esteem, control, and purpose after reading information on sexism. Denials of sexism did not induce negative effects relative to the control condition. In the General Discussion, we address how this relates to other studies that have shown harmful effects of denials of sexism.

Study 4.2 demonstrated the impact of information about sexism on feelings of exclusion and career expectations and motivation, but remained mute about the role that women’s personal experiences as victims of sexism can play in this matter. In Study 4.3, these experiences were taken into account. Moreover, Study 4.3 tested whether instead of the results of a fictional study on sexism, exposure to actual news articles about sexism would yield the same results.

### Study 4.3

Study 4.3 tested if the effects of information on sexism vs. a control condition that were documented in Study 4.2 would replicate in a setting where participants read actual news articles about sexism. Again, we predicted that feelings of exclusion, negative feelings, and need threats would be higher among female participants who read vs. did not read news articles about sexism. We also predicted that they would have lower expectations of success in the job market, and that they would feel more demotivated after reading news articles about the occurrence of sexism.

Moreover, Study 4.3 explored if the impact of exposure to information on sexism would change depending on how frequently women had personally experienced being treated in a sexist way. Previous literature supports both the possibility that the effects would be attenuated for women who had *less* frequent experiences, or attenuated for women who had *more* frequent experiences with being treated in a sexist way. First, research has demonstrated that individuals who were personally less affected by discrimination, were also more likely to disregard information that suggested discrimination against them (Barreto & Ellemers, 2015; Stroebe et al., 2010b). Similarly, women who did not expect to be discriminated against have been shown to attend less to signs of sexism (Kaiser, Vick, & Major, 2006). For women who have been discriminated against less often, information about sexism in society may thus be disregarded to a greater extent, and as a result be less impactful. On the contrary, reduced impact of information on sexism could be typical for women who have had more frequent experiences with discrimination. After all, for women with frequent firsthand experiences with being treated in a sexist way, the threat of discrimination may generally be more active, triggering a range of negative effects (Branscombe, 1998; Schmitt & Branscombe, 2002). For these individuals, information on the prevalence of sexism may then have little additional impact beyond these effects. The study was preregistered at: <https://osf.io/jkqbv>.

### Methods

**Participants and design.** The between-subjects experiment had two conditions (information on sexism vs. control condition), and was conducted on Prolific. As preregistered, we aimed to collect data of 250 participants. Data of 265 British female participants between 18 and 50 years old, with at least a Bachelor's degree, were collected. Incomplete responses of 13 participants were removed, and one participant who did not identify as female was

excluded from the analyses. In line with Study 4.1, the participants expressed reasonable career ambition ( $M = 4.51$ ,  $SD = 1.55$ ). The sample of  $N = 251$  (mean age 31.92,  $SD = 7.64$ ), provided a power of  $\beta = .80$ , with  $\alpha = .05$ , to detect effect sizes of at least  $d = 0.31$ , which would be sufficient to detect the smallest effect observed in the information on sexism vs. control condition contrast in Study 4.2 (see Table 4.3).

**Procedure and materials.** After agreeing with the terms in the consent form, participants were informed that they would read a series of newspaper articles, and answer a series of questions. Participants in the information on sexism condition were shown screenshots containing the opening paragraphs of six news articles<sup>15</sup>, for 30 seconds each. The articles were selected from a broad range of well-known British newspapers, and all described the prevalence of sexism in society, for example reporting that women are underrepresented in higher functions in the workplace, or are often paid less than men. After reading these articles, participants were asked to summarize the main point of the articles, and were instructed to reflect on what the articles meant for them personally. Participants in the control condition answered the questions below without reading any news article. They were not provided with a set of unrelated news articles, as the impact of reading such a set of articles would be hard to estimate.

Participants in both conditions indicated their feelings of exclusion ( $\alpha = .92$ ), need threats ( $\alpha = .90$ ), and negative feelings ( $\alpha = .93$ ) on the same questions as in Study 4.2. Participants continued to indicate the highest possible position that they wanted to achieve in working life, and answered the same questions about their expectations of success ( $\alpha = .72$ ) and demotivation in the job market ( $\alpha = .86$ ) as in Study 4.2. As a control, participants' ambition in the job market was measured with the same question as in Study 4.1. Then, participants indicated how often they experienced being treated in a sexist manner in their lives: "How often have you personally encountered a situation in which you were treated in a sexist way?" and "How often have you personally encountered a situation in which you felt

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<sup>15</sup><https://www.dailymail.co.uk/news/article-1175800/Why-women-dont-close-glass-ceiling-workplace.html>  
<https://www.independent.co.uk/news/business/news/graduate-recruiters-accused-of-sexism-with-less-than-42-of-jobs-offered-to-women-10492216.html>  
<https://www.independent.co.uk/life-style/women/women-work-career-top-jobs-equality-study-fawcett-society-a9280456.html>  
<https://www.theguardian.com/society/2019/oct/22/sexist-doctors-stark-reminder-workplaces-penalise-women>  
<https://www.thesun.co.uk/news/4884692/gender-pay-gap-uk-companies-women-less-men/>  
<https://www.telegraph.co.uk/women/business/revealed-almost-adults-prejudice-against-women/>



discriminated against because of your gender?”, 1 = *Never*, 7 = *Very often*, ( $\alpha = .90$ ). Full questions are documented in the preregistration for this study. Finally, participants were thanked, debriefed, and got paid.

## Results

A series of independent *t*-tests were conducted to compare the participants who read news articles about sexism (information on sexism condition) with participants who did not (control condition). All results can be found in Table 4.4. As predicted, participants who read news articles about sexism reported significantly elevated levels of exclusion, need threats, and negative feelings, and lower expectations of success and motivation in the job market.

**Table 4.4**

*T-test Results, Including Means and SDs (Study 4.3)*

	Conditions		Statistics		
	<i>M (SD)</i>		<i>t</i>	<i>p</i>	<i>d</i>
	Information on sexism	Control			
Exclusion	3.62 (1.51)	2.20 (1.12)	8.51	< .001	-1.07
Need threats	3.85 (1.18)	3.40 (1.06)	3.12	.002	-0.39
Negative feelings	4.12 (1.37)	3.30 (1.15)	5.15	< .001	-0.65
Expectations	3.65 (1.75)	4.33 (1.63)	-3.17	.002	0.40
Motivation	4.02 (1.65)	4.57 (1.39)	-2.86	.005	0.36

**Exploratory Analyses.** A moderation analysis tested whether participants’ prior experiences with having been treated in a sexist manner, would moderate the effect of the conditions (i.e., reading news articles about sexism, or not) on the dependent variables. The frequency with which participants indicated they had been discriminated against because of their gender differed marginally between the information on sexism ( $M = 4.22$ ,  $SD = 1.47$ ) and the control condition ( $M = 3.88$ ,  $SD = 1.54$ ),  $t(249) = 1.82$ ,  $p = .070$ ,  $d = -0.23$ . A moderation analysis with 10,000 bootstrap resamples demonstrated that the interaction effect between the condition and the frequency with which women experienced sexism was not significant for any of the dependent variables (see Table 4.5 for all statistics). For each of these variables, the main effects of condition and experienced sexism were significant. Across both conditions, people who had more frequently experienced being treated in a sexist way, thus indicated

increased exclusion, need threats, and negative feelings, and lower career expectations and motivation.

To test possible mediating variables that help explain the reduced career motivation in the information on sexism condition, a mediation analyses with 10,000 bootstrap resamples was conducted, in which feelings of exclusion, negative feelings, need threats, and career expectations were added simultaneously. The mediation analysis demonstrated that career expectations,  $b = -0.25$ , 95% CI [-0.46 – -0.10], and need threats,  $b = -0.16$ , 95% CI [-0.41 – -0.03] mediated the effect of conditions on demotivation in the job market (see Figure 4.3). Exclusion,  $b = 0.22$ , 95% CI [-0.03 – 0.51], and negative feelings,  $b = -0.16$ , 95% CI [-0.41 – 0.01], were no significant mediators.

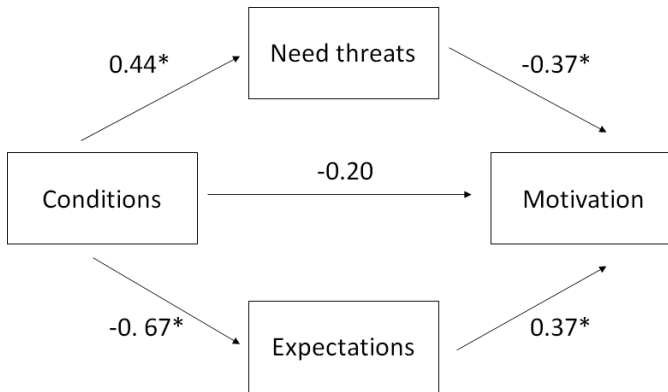
**Table 4.5**

*Moderation Analyses Results for Experienced Sexism (S), Condition (C), and the Experienced Sexism × Condition Interaction (S × C; Study 4.3)*

		Statistics		
		$t(1, 247)$	$b$	$p$
Exclusion	S	5.33	0.28	< .001
	C	-8.31	-1.33	< .001
	S × C	-1.61	-0.17	.110
Need threats	S	6.51	0.29	< .001
	C	-2.60	-0.34	.010
	S × C	-1.10	-0.10	.272
Negative feelings	S	6.04	0.30	< .001
	C	-4.77	-0.72	< .001
	S × C	-1.01	-0.10	.313
Expectations	S	-7.80	-0.50	< .001
	C	2.61	0.50	.010
	S × C	0.72	0.09	.471
Motivation	S	-3.29	-0.21	.001
	C	2.52	0.48	.012
	S × C	1.13	0.14	.261

**Figure 4.3**

*Significant Mediators of the Relation Between Conditions and Motivation (Study 4.3)*



*Note.* Significant beta-weights ( $p < .05$ ) are indicated with an \*

## Discussion

Study 4.3 demonstrated that news articles with information on sexism (vs. not reading these articles) induced feelings of exclusion, threats to the fundamental needs, and negative feelings. It also lowered women's expectations of success in the job market, and demotivated them to achieve higher positions. This conceptually replicated the findings from Study 4.2. Moreover, exploratory analyses provided evidence that lowered expectations and reduced need fulfilment after exposure to information about sexism, both contributed to the observed career demotivation. Finally, no evidence was found that the negative effects of exposure to information that confirmed sexism were dependent on the extent to which participants felt they had experienced gender discrimination in their own lives.

### General Discussion

Raising awareness of sexism can be seen as an important step, prompting society to take action against gender inequality (Stroebe et al., 2010a) and countering the harmful idea that sexism is a thing of the past (Swim et al., 1995). Raising awareness of sexism is therefore essential to reduce inequality in the longer term. To understand the negative effects of sexism, it is then also important to document the immediate effect of such awareness. In line with the idea from the social exclusion literature that people are very attentive and sensitive to signs that they are devalued by others (Leary, 2001; Wesselmann et al., 2009; Williams, 2009), we

show that being informed or made aware of the prevalence of sexism can directly induce the negative experience of being socially excluded.

Study 4.1 demonstrated that the more women perceived society to be sexist, the more they felt excluded from society, and the lower were their career expectations and motivation. Next, using an experimental approach, we showed that reading fictional research outcomes (Study 4.2), and newspaper articles (Study 4.3), that addressed the prevalence of sexism in society, induced these feelings of exclusion, need threats, and negative feelings. It also decreased expectations of being likely to achieve higher career positions, and motivation to achieve such positions.

That information on sexism reduced career motivation mirrors findings that discrimination can negatively affect motivation in educational programs and the workplace (Van Laar et al., 2010, 2013), but shows that simple reminders of sexism in society may already induce these effects. Exploratory analyses across three studies demonstrated that this demotivation could partly be explained by lowered expectations of what was achievable in the workplace (Studies 4.1 and 4.3), and partly by the reduced need fulfilment that participants experienced as a result of information about sexism (Studies 4.1, 4.2, and 4.3). Interestingly, it was not the feeling of exclusion itself, but how information on sexism affected the fundamental needs that appeared to explain the negative impact on motivation. Indeed, belonging (Korpershoek, Canrinus, Fokkens-Bruinsma, & De Boer, 2019), control (Fisher, 1978), self-esteem (Bénabou & Tirole, 2002), and purpose in life (Martela & Steger, 2016) have individually all been documented as important prerequisites for motivation.

Besides highlighting the effects of being informed about sexism, it is notable that Study 4.2 did not provide evidence that exposure to denials of sexism (an important component of modern sexism) was any more harmful than reading no information about sexism at all. Although denying to be personally discriminated against can protect people's well-being (Bahamondes et al., 2019; Napier et al., 2020), being directly exposed to information that denies sexism has previously been found to induce insecurity and fear (Barreto & Ellemers, 2005). Contrary to these findings, in Study 4.2 women's need fulfilment and feelings were not affected negatively after exposure to denials of sexism. Possibly, these effects were absent because the denials were not recognized as threatening by participants: Expressions of modern sexism can be hard to detect, and are often not recognized as harmful (Barreto & Ellemers, 2005; Swim et al., 1995). Especially since the absence of sexism in society was

presented as a research finding in Study 4.2, and not as an opinion that denies a reality of inequality, the denials may not have been recognized as harmful, and may have failed to trigger the negative effects documented in previous studies (e.g., Barreto & Ellemers, 2005). The current results then suggest that in itself, the message that women are not discriminated against in society can also signal an inclusive environment, that does not induce feelings of exclusion from society. Such positive interpretations may also be what allows modern sexist ideas to remain unchallenged and contribute to perpetuating the unequal status quo.

The current article has shown that information about discrimination against one's group can affect individuals' immediate well-being. This effect was found, even though it has consistently been shown that members of marginalized groups tend to underestimate how much they are personally affected by discrimination, relative to their group (Bourguignon, Seron, Yzerbyt, & Herman, 2006; Leshner et al., 2018; Ruggiero & Taylor, 1997; Schmitt & Branscombe, 2002; Taylor, Ruggiero, & Louis, 1996). Even though on the basis of the information about sexism that they received, women in our studies may thus have underestimated how much they would personally be affected by discrimination, the threat was still sufficient to trigger or intensify feelings of exclusion. This fits with the idea that even signs that indicate a small chance of future exclusion can trigger the negative experience associated with exclusion (Williams, 2009).

Given that information about the prevalence of gender discrimination in society induced feelings of exclusion, it appears that not only direct and personal experiences with discrimination can be impactful for people's well-being. Rather, information about how one's group is generally treated can also negatively affect individuals. This fits with literature on the phenomenology of being discriminated against. There, it is often stressed that it is people's subjective *perception* of being discriminated against, and the associated *expectation* to be mistreated again in the future, that is predictive of how negative people feel (Banerjee, 2008; Bourguignon et al., 2006; Branscombe, 1998; Dion, 2002; Kobrynowicz & Branscombe, 1997; Schmitt & Branscombe, 2002; Szalacha et al., 2003). Such perceptions and expectations may be activated or shaped by information about the prevalence of discrimination in society (e.g., in the media; see Taylor, Ruggiero, & Lewis, 1996). That media representations have the potential to shape people's perceptions of their social reality, including gender roles, has been shown previously (Gerbner, 1998; Grau & Zotos, 2016). Future research could address how repeated exposure to information on sexism may activate or shape women's perceptions of

sexism, and how this influences their sense of inclusion and exclusion in society in the longer term.

The finding that information about the prevalence of sexism can induce immediate feelings of social exclusion, is in line with previous research demonstrating reduced well-being among individuals that learned they were discriminated against in a job selection process (Stroebe et al., 2010b), and among individuals with increased awareness of gender inequality in technical professions (Pietri et al., 2019). However, such negative effects of receiving information about sexism in society should not be interpreted as suggesting that information about sexism has a net negative effect. Not attending to or denying sexism is considered a form of sexism (Swim et al., 1995) that obstructs attempts to reduce the current inequality (comparable critiques are found on the colorblindness approach in racial discrimination, see for example Fryberg & Stephens, 2010). Raising awareness of problematic gender inequality then is essential in inspiring women to identify with the female ingroup (see Branscombe & Ellemers, 1998), and prompting society and individuals to take action against inequality (Barreto & Ellemers, 2015; Cameron, 2001; Ellemers & Barreto, 2009; Schmitt & Branscombe, 2002; Stroebe et al., 2010a; Van Zomeren, Spears, & Leach, 2008).

Although the current article focused on how women respond to information about sexism in society, the mechanisms and outcomes discussed here may also be informative for how members of other marginalized groups respond to information about discrimination against their group. Future research could test if, for example, individuals of ethnic, cultural, or sexual and gender minority groups show a similar pattern of exclusion, need threats, and negative feelings, when they are exposed to information about the prevalence of discrimination against their groups. Thereby, the current article can contribute to a better understanding of how awareness of discrimination in society can impact immediate and longer-term social exclusion and inclusion.