

**The Effects of Hostile Sexism on Collective Action Intentions:
The Roles of Emotions and Identification**

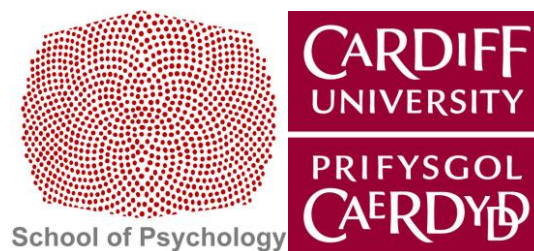
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fulfilment of the requirements for the degree of DOCTOR OF PHILOSOPHY

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This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is being submitted concurrently in candidature for any degree or other award.

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*I dedicate this thesis to my mother, Chrysoula Lemonaki.
With love and a big thank you for always being there for me, for believing in me, and
for helping me achieve my goals.*

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Thesis Summary

The aim of the research reported in this thesis was to examine the way in which exposure to hostile sexism influences women's (competitive) collective action intentions, by investigating the mediating role of emotions and the moderating role of identification in this process.

Experiments 1-2 (Chapter 2) examined the effect of hostile sexism on women's emotional reactions and readiness to engage in social competition. Results showed that exposure to hostile sexism had a positive indirect effect on social competition intentions through increased anger-frustration, and a negative indirect effect through decreased security-comfort.

In an effort to understand why hostile sexism has divergent effects on social competition intentions, Experiment 3 (Chapter 3) tested whether the mediating role of emotion is moderated by identification with different female subtypes. Results showed that high (vs. low) identifiers with traditional women who were exposed to hostile sexism were more likely to experience lower levels of confidence-related emotions, and as a result were less motivated to engage in social competition. Although identification did not moderate the effect of hostile sexism on the experience of anger, increased anger was more likely to lead highly identified traditional women to form increased social competition intentions.

Experiments 4-6 (Chapter 4) examined whether the divergent effects of hostile sexism on social competition intentions also apply to women's intentions to engage in collective action for parity. Results showed that hostile sexism had a positive indirect effect on collective action for parity intentions through anger, but not a negative indirect effect through confidence-related emotions.

Overall, the findings of this thesis reveal important differences in the ways that hostile sexism influences women's intentions to compete with men, and highlight the importance of considering the specific content of gender identification, and the significance of identifying the specific goal of collective action when examining women's reactions to sexism.

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Chapter 1: Introduction

According to Fiske (1998), groups tend to be stereotyped on two broad dimensions: competence and socio-emotional warmth. Most intergroup stereotypes are not uniformly negative but are instead ambivalent; they are positive on one dimension, and negative on the other. The content of intergroup stereotypes reflects the social structural relations between social groups (Cuddy, Fiske, & Glick, 2007; Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Xu, Cuddy, & Glick, 1999; see also Alexander, Brewer, & Hermann, 1999; Alexander, Brewer, & Livingston, 2005), and can be predicted by two variables that play a significant role in the field of intergroup relations, that is, the relative status and the interdependence of groups (Fiske et al., 2002). More specifically, *status* predicts a group's perceived *competence*, whereas positive or negative *interdependence* (cooperation or competition) predicts a group's perceived socio-emotional *warmth*. High status, competitive groups tend to be viewed as competent but socio-emotionally cold. By contrast, low status, non-competitive groups are viewed as warm but incompetent (see also Jost, Kivetz, Rubini, Guermandi, & Mosso, 2005; Phalet & Poppe, 1997; Poppe & Linssen, 1999).

With respect to gender stereotypes, women tend to be viewed more positively than men (Eagly, Mladinic, & Otto, 1991; Eagly & Mladinic, 1994). Women are seen as sentimentally warm, sweet, affectionate, and caring. Nevertheless, these stereotypes have a specific semantic content related to the socio-emotional warmth dimension, and are most often accompanied by negative evaluations on the competence dimension. As a consequence, these ambivalent stereotypical beliefs (i.e., women are warmer than, but not as competent as men) render women appropriate for specific gender-related, predominantly domestic and caring roles within society (e.g., Eagly & Mladinic, 1994). At the same time they justify women's relatively lower

status and power, by comparison to men's higher status and power, within the gender power hierarchy (e.g., Glick & Fiske, 2001a). As Glick and Fiske (2001c) argue, this particular combination of the superiority of the dominant group in terms of competence, and the superiority of the subordinate group in terms of socio-emotional warmth, serves very specific purposes. First, it minimizes the subordinate group's resistance to the current social structure. Second, it creates a subtle and effective pressure on women to conform to the prescriptive aspect of gender stereotypes (see Fiske, 1993, p. 623, for a distinction between descriptive and prescriptive stereotypes), which dictates how men and women should think, feel and behave.

1.1. Hostile and Benevolent Sexism

The above distinction is clearly reflected within the theoretical framework of ambivalent sexism developed by Glick and Fiske (1996). According to Glick and Fiske, "Sexism is ... a special case of prejudice marked by a deep ambivalence, rather than a uniform antipathy, toward women (1996, p. 491). This sexist ambivalence stems from two kinds of complementary but opposite (in terms of their evaluative implications) sexist beliefs toward women: hostile sexism and benevolent sexism. Hostile sexism fits Allport's (1954) classic definition of prejudice as antipathy, and typical conceptualizations of sexism as a unitary hostility toward women (e.g., Swim, Aikin, Hall, & Hunter, 1995; Tougas, Brown, Beaton, & Joly, 1995). It comprises negative and rather competitive beliefs, maintaining that women use sexuality or feminist ideology as a means to control men and achieve status. Benevolent sexism consists of subjectively favourable, paternalist beliefs that are sexist "... in terms of viewing women stereotypically and in restricted roles ..." (Glick & Fiske, 1996, p. 491). It maintains that women are nice but also weak, and therefore in need of being cherished and protected.

Patriarchy, gender differentiation, and sexual reproduction, which constitute the underlying characteristics of intergroup gender relations, combine to create hostile and benevolent sexism (e.g., Glick & Fiske, 1996, 1997; Glick et al., 2000). Hostile sexism encompasses dominative paternalism, competitive gender differentiation, and heterosexual hostility. Dominative paternalism justifies men's exertion of control over women, as the latter are viewed as less competent and therefore in need of the guidance of men. Competitive gender differentiation provides justifications for men's structural power. Women are perceived as inferior to men in terms of competence-related characteristics (e.g., efficiency), and men are thereby rendered suitable for high status, dominant roles, whereas women are considered unsuitable for such roles. Finally, heterosexual hostility reflects the belief that women tend to use their sexual allure with a view to gaining power and exerting control over men. It also reflects the tendency to view women merely as sexual objects. To sum up, within the hostile sexist ideology women are viewed as seeking to outrun men in terms of power and to exert control over them through either their feminist ideology or their sexuality.

By contrast, as a result of men's dyadic dependence on women (i.e., as mothers, wives and romantic partners), benevolent sexism comprises protective paternalism, complementary gender differentiation, and intimate heterosexuality. Protective paternalism holds that women ought to be protected and cared for. Complementary gender differentiation acknowledges women's superiority in warmth-related, communal characteristics (e.g., sensitivity, emotionality), which renders them suitable for traditional gender-related roles. In this sense, "... women are the better sex, but only in ways suiting lower status, gender-conventional roles ..." (cf. Glick & Fiske, 2001b, p. 122). Finally, intimate heterosexuality reflects a link, on behalf of men, between heterosexual relationships and a desire for psychological closeness with

their romantic partner. Women as romantic partners are viewed as an essential requirement for men's happiness and completeness.

Across nations, average scores on measures of hostile and benevolent sexism are positively correlated and predict national indices of gender inequality in power (i.e., the extent to which women are represented in high-status jobs in business and government) and resources (i.e., women's level of education, standard of living), supporting the notion that they constitute complementary ideologies in support of gender inequality (Glick et al., 2000; Glick & Fiske, 2011; Glick et al., 2004). Both hostile and benevolent sexism trade on gender stereotypes, share the same beliefs about women (e.g., that women are less competent and capable than men, and therefore less suitable for taking on high status positions), and serve to justify men's structural power and dominance, and therefore to promote and maintain gender inequality. However, hostile sexism is a more obvious way of achieving this, whereas benevolent sexism relies on subtler and gentler justifications (Glick & Fiske, 1996, 1997, 2001a). Specifically, hostile sexism justifies men's fit (and women's lack of fit) to high-status roles by asserting men's superior competence. Benevolent sexism also justifies men's privileged position in the social hierarchy, but does so in a more socially acceptable way, by asserting women's superiority in socio-emotional warmth (thereby implying a lack of competence). In other words, benevolent sexism placates and compensates women by justifying their fit to low-status, non-threatening roles instead (see also Lee, Fiske, & Glick, 2010). This way, benevolent sexism provides a comfortable rationalization for constraining women in domestic roles (Glick & Fiske, 1996). It is not women's lack of competence that renders them unsuitable for high-status roles; rather, it is women's superiority in socio-emotional warmth that renders them especially suitable for domestic roles.

Jackman (1994) argues that paternalistic (as compared with hostile) justifications of social hierarchies are more likely to be accepted, and therefore more effective in minimizing resistance and maximizing compliance from low-status groups. Hostile assertions of women's lack of competence would not have been as effective in maintaining the current gender hierarchy as the combination of hostile and benevolent sexism (Cuddy, Fiske, & Glick, 2008; Glick & Fiske, 2001c). Like a punishment and reward reinforcement system, hostile sexism deters women from seeking higher status roles. By contrast, benevolent sexism provides incentives for remaining in lower status, gender-traditional roles, eliciting women's cooperation in their own subordination (see also Jackman, 1994). In line with the above, hostile sexism and the accompanying negative evaluations target those women who challenge the traditional gender-related roles (e.g., career women, feminists). Conversely, those women who adhere to traditional gender-consistent roles and conform to societal prescriptions regarding the allocation of power and dominance within the gender hierarchy (e.g., housewives, mothers) are rewarded with benevolent sexism, and the accompanying positive and even idealizing evaluations of women (Glick, Diebold, Bailey-Werner, & Zhu, 1997; see also Hebl, King, Glick, Singletary, & Kazama, 2007; Masser & Abrams, 2004; Sibley & Wilson, 2004).

1.1.1. The Negative Consequences of Hostile Sexism

Because overt expressions of sexism are no longer in keeping with egalitarian societal norms and beliefs, current manifestations of sexism include not only overt and blatant expressions of sexist beliefs but also covert and subtle forms of sexism (e.g., Benokraitis & Feagin, 1995; Glick & Fiske, 1996; Jackman, 1994; Swim et al., 1995; Swim & Cohen, 1997; Tougas et al., 1995). Due to their implicit nature, subtle forms of sexism are more likely to go unnoticed and to remain unchallenged. Indeed,

previous research has shown that benevolent (compared to hostile) sexist beliefs are less likely to be recognized as a form of prejudice (Barreto & Ellemers, 2005b). Moreover, people who endorse benevolent sexist views, compared to those who express hostile sexist views, are perceived as less prejudiced, are evaluated more positively (see also Killianski & Rudman, 1998), and elicit less anger (see also Barreto & Ellemers, 2005a).

As a result, research attention has shifted toward the dangers of benevolent sexism and how it insidiously contributes to the maintenance of gender inequality. For example, Vescio, Gervais, Snyder, and Hoover (2005) found that exposure to patronizing behaviour from a powerful man diminished women's cognitive performance. In accordance with this, in the context of a job selection interview and testing, the recruiter's benevolent sexist comments led women to experience intrusive thoughts about their sense of competence (e.g., self-doubt about their competence; Dardenne, Dumont, & Bollier, 2007) and facilitated access to autobiographical memories of being incompetent (Dumont, Sarlet, & Dardenne, 2010), and as a result impaired women's cognitive performance in a task that was part of the job recruitment process. Moreover, women who endorse benevolent sexism were more likely to accept their male romantic partner's ostensibly protectively justified restriction on their career (e.g., not to do a potentially dangerous internship about which they were excited), and to assume the partner's motives as benign, even while recognizing the restriction as discriminatory (Moya, Glick, Expósito, De Lemus, & Hart, 2007). Finally, exposure to benevolent sexism has been shown to undermine women's decisions to challenge the gender status quo, either by decreasing their engagement in collective action (Becker & Wright, 2011; Ellemers & Barreto, 2009), or less directly by increasing system justification among women (Jost & Kay, 2005).

It is worth remembering that hostile sexism is still undeniably prevalent in cultures around the globe (e.g., Glick et al., 2000). Women report experiencing in their daily lives not only benevolent but also hostile expressions of sexism, in the form of demeaning and degrading comments and behaviours (Swim, Hyers, Cohen, & Ferguson, 2001). Hostile sexism is associated with negative evaluations and lower employment recommendations of a female candidate for a management position (Masser & Abrams, 2004; see also Glick et al., 1997). Women who engage in agentic behaviours (e.g., choosing to pursue a career in a male dominated domain) and who display agentic traits are perceived as competent but also as insufficiently nice (Rudman, 1998; Rudman & Glick, 1999). Perceptions of insufficient niceness can in turn result in hiring discrimination against agentic female candidates for a managerial role that requires interpersonal skills (Rudman & Glick, 1999, 2001). Along the same lines, Hebl et al. (2007) found that apparently pregnant (vs. non-pregnant) female job applicants encountered more hostile behaviour (e.g., rudeness) and were especially likely to encounter hostility when applying for non-traditional, masculine jobs, as compared with traditional, feminine ones.

Consistent with the above, individuals who endorse hostile sexism hold less favourable attitudes toward women managers (Sakalli-Ugurlu & Beydogan, 2002), and female leaders who adopt a stereotypical masculine leadership style are evaluated less favourably than their male counterparts (Eagly, Makhijani, & Klonsky, 1992). Moreover, a female manager's sexy (as compared to a more conservative) appearance evokes more negative emotional reactions that, in turn, lead to unfavourable evaluations of her competence and intelligence (Glick, Larsen, Johnson, & Branstiter, 2005).

Finally, it has been demonstrated that individuals with hostile sexist attitudes tend to deny uniquely human qualities to women, such as secondary emotions and agency. Specifically, Viki and Abrams (2003) found that individuals with hostile sexist attitudes are more likely to deny positive secondary emotions to women as a social group (a process that has been named *infra-humanization*; Leyens et al., 2000; Leyens et al., 2001). Moreover, men with hostile sexist attitudes tend to objectify sexualized women who, compared to clothed women, are more likely to be seen as the objects, rather than the agents, of an action (Cikara, Eberhardt, & Fiske, 2011).

In light of this evidence, the damaging consequences of hostile sexism cannot be questioned, and the need for a better understanding of how hostile sexist attitudes affect women's reactions is indisputable. The aim of the research reported in this thesis was twofold: a) to investigate the emotional impact of hostile sexism, and its subsequent influence on women's readiness to challenge the current gender status quo by engaging in collective action aimed at competing with and outperforming men or at achieving parity with men; and b) to test whether these processes were moderated by women's level of identification with different female subtypes, namely traditional women or feminists.

1.2. Explanations of Collective Action

The question of what motivates people to engage in collective action has been the focus of seminal social psychological theories such as relative deprivation theory (RDT; e.g., Runciman, 1966; Walker & Smith, 2002) and social identity theory (SIT; Tajfel, 1978; Tajfel & Turner, 1979). According to relative deprivation theory, collective action occurs when group members feel that their ingroup is deprived relative to a reference outgroup (Guimond & Dubé-Simard, 1983; Runciman, 1966). Social identity theory posits that an ingroup's relatively disadvantaged status contributes to a negative or threatened social identity. In response to an unfavourable ingroup position, group members may choose to act individually (e.g., individual mobility) or collectively (e.g., social competition). Individual mobility entails a group member's individual attempts to dissociate from a lower-status ingroup and pass to a higher-status outgroup. As a result, one's personal status position is improved, whereas the ingroup's relative status position remains unchanged. By contrast, "[a] group member engages in collective action any time that he or she is acting as a representative of the group and the action is directed at improving the condition of the entire group" (Wright, Taylor, & Moghaddam, 1990, p. 995).

According to social identity theory, whether a group member will choose to act individually or collectively depends on a number of factors, both socio-structural and socio-psychological. Socio-structural factors include the perceived legitimacy of the intergroup status relation and its perceived stability, and an important socio-psychological factor is identification with the ingroup. Perceptions of illegitimate and unstable intergroup status relations combine to set the foundation for intergroup action. As Tajfel (1978) put it, "[T]he problems of social identity of the inferior group would not necessarily express themselves in social behaviour until and unless there is

some awareness that the existing social reality is not the only possible one and that alternatives to it are conceivable and perhaps attainable” (p. 93). Thus, low status group members who perceive the ingroup’s disadvantaged position to be illegitimate and unstable are more likely to identify highly with the ingroup, and act collectively by engaging in social competition. Group members need to perceive that “cognitive alternatives” to the current intergroup situation exist before identification with the ingroup mobilizes them for collective action (see also Tajfel & Turner, 1979).

With regard to illegitimacy, both relative deprivation theory and social identity theory stress that collective action occurs as a response to the ingroup’s relatively disadvantaged position, which is also perceived as unfair or illegitimate (e.g., Ellemers, Wilke, & van Knippenberg, 1993; Mummendey, Kessler, Klink, & Mielke, 1999; Wright et al., 1990). In an integrated model that combines social identity theory and relative deprivation theory, Mummendey et al. (1999) showed that perceptions of an intergroup situation as illegitimate led group members to experience stronger feelings of group relative deprivation, such as anger and resentment. In turn, group-based anger and resentment were associated with increased collective action tendencies (e.g., social competition; see also Smith & Kessler, 2004). Consistent with this finding, there is ample empirical evidence for the mediating role of group-based anger between perceptions of a given intergroup situation (e.g., perceived injustice or discrimination) and collective action tendencies (e.g., Ellemers & Barreto, 2009; Mackie, Devos, & Smith, 2000; Van Zomeren, Spears, Fischer, & Leach, 2004).

Additionally, perceptions of illegitimacy of the intergroup situation influence not only group members’ emotional reactions to the ingroup’s disadvantaged position, but also their level of identification with the ingroup. Social identity theory (Tajfel, 1978; Tajfel & Turner, 1979) posits that when group members perceive the lower

status position of the ingroup to be illegitimate and unstable they are more likely to identify with the ingroup and to engage in collective action to change the unjust intergroup situation. Consistent with this line of reasoning, Ellemers and colleagues (1993; see also Ellemers, 1993) have shown that group members' perceptions of their collective disadvantage as illegitimate and unstable resulted in an increase in ingroup identification, and in a greater display of competitive behaviour toward the outgroup (i.e., intergroup competition for social status). There is ample research evidence demonstrating the important role of social identification in influencing group members' willingness to engage in collective action (e.g., De Weerd & Klandermans, 1999; Simon et al., 1998).

The results of a meta-analysis by Van Zomeren, Postmes, and Spears (2008) indicated the importance of social identification in predicting collective action, and showed that politicized identification (i.e., identification with a social movement) is a better predictor of collective action than non-politicized identification. This finding is in line with work by Simon, Stürmer et al. (for a review see Stürmer & Simon, 2004a) who have argued and found that a politicized form of collective identification is more likely to mobilize collective action. More specifically, their results suggest that group members' identification with a disadvantaged ingroup increases their willingness to engage in collective action only to the extent that it is transformed into a more politicized form of identification (e.g., identification with the older people's movement; Simon et al., 1998, Study 1). Furthermore, this finding underlines the importance of focusing research attention on the specific content of social identification. As Van Zomeren and colleagues (2008) suggest, it may not necessarily be social identification per se that motivates group members to engage in collective action but rather the content of social identification.

Nevertheless, a sense of injustice and of collective identity may be a necessary but not sufficient precondition for collective action participation (Klandermans, 1997). Group members also need to be convinced that they have the power to change the unfair situation (i.e., a sense of collective efficacy) in order to be willing to engage in collective action. Perceived instability of the status relations between the groups concerned could be seen as relevant to the concept of collective efficacy. Perceived collective efficacy is “a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainment” (Bandura, 1997, p. 477). In other words, collective efficacy refers to ingroup members’ confidence in their ability to attain the ingroup’s goals. Therefore, ingroup members’ perceptions that their collective disadvantage is unstable (i.e., they believe that there is a possibility for the status relations to change) might also be related to a belief in the ingroup’s abilities to bring about change through collective action (i.e., a sense of group efficacy; Smith & Kessler, 2004). Previous research has demonstrated the importance of perceived group efficacy in increasing group members’ willingness to engage in collective action (e.g., Mummendey et al., 1999; Van Zomeren et al., 2004).

As outlined above, perceptions of illegitimacy or unfairness and the associated group-based emotions such as anger, social identification, and perceived group efficacy constitute three of the most prominent explanations of collective action (Klandermans, 1997). In this thesis, I will focus mainly on the mediating role of group-based emotions, that is, anger-related and confidence-related emotions, and on the moderating role of identification (with a focus on the specific content of identification, that is, identification with different female subtypes, namely traditional women and feminists).

1.2.1. The Role of Emotions in Motivating Collective Action

Intergroup emotions theory (IET; Mackie et al., 2000; Smith, 1993, 1999; see also Devos, Silver, Mackie, & Smith, 2003; Smith, Seger, & Mackie, 2007) builds upon self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and extends appraisal theories of emotion (e.g., Frijda, 1986; Frijda, Kuipers, & Ter Schure, 1989; Roseman, 1984) from the interpersonal to the intergroup context. Appraisal theories view an emotion as a complex reaction to a situation or an event that includes cognitions, feelings and behavioural action tendencies. That is, individuals experience specific emotions based on their appraisals of a situation or an event as harming or favouring the self (e.g., their individual goals), and whether they possess or not the means to cope with it. For example, anger and the associated action tendencies (e.g., willingness to engage in confrontational behaviour) can be triggered by appraisals that someone has unjustly harmed the self (e.g., Frijda et al., 1989; Roseman, 1984). Smith's theory (IET; 1993, 1999) proposes an extension of appraisal theories in which (intergroup) emotions are affected by self-categorization and triggered by appraisals of a situation in relation to the social self (i.e., the ingroup) rather than the individual self. IET holds that when social identity is salient (i.e., a group membership becomes part of the self), appraisals of a given intergroup situation lead group members to the experience of specific emotions on behalf of the ingroup. For example, when an outgroup's actions towards the ingroup are appraised as unfair this could trigger group-based anger (e.g., Van Zomeren et al., 2004). On the other hand, when the ingroup's actions toward an outgroup are appraised as unfair this could elicit group-based guilt (e.g., Doosje, Branscombe, Spears, & Manstead, 1998). In turn, specific emotional experiences generate specific action tendencies toward the outgroup. For example, intergroup situations that trigger offensive emotional

responses such as anger, frustration and resentment may lead group members to take action against the outgroup. By contrast, intergroup situations that elicit defensive emotional reactions such as fear or anxiety may lead group members to avoid the outgroup (e.g., Devos et al., 2003).

1.2.1.1. Emotions that Motivate Collective Action

In an empirical test of the IET, Mackie and colleagues (2000; see also Devos et al., 2003) investigated the extent to which participants' appraisals of collective support (i.e., the perceived strength or weakness of the ingroup relative to the outgroup) within a potential threatening intergroup situation would trigger specific emotions which, in turn, would evoke specific action tendencies toward the outgroup (i.e., offensive vs. defensive action tendencies). According to appraisal theories, offensive action tendencies are motivated by the experience of "attack emotions" such as anger and frustration (e.g., Roseman, 1994; cited in Roseman, Antoniou, & Jose, 1996). Consistent with this reasoning, Mackie and colleagues found that feelings of anger toward the outgroup mediated the relation between participants' appraisals of the ingroup as stronger than the outgroup and their willingness to "move against" the outgroup (i.e., to argue with, confront, oppose and attack the outgroup). In the same vein, Yzerbyt, Dumont, Wigboldus, and Gordijn (2003) showed that the emotional experience of group-based anger, as a response to an outgroup's negative behaviour towards the ingroup, mediated the manifestation of offensive action tendencies associated with anger. Similarly, Mummendey et al. (1999) found that appraisals of the intergroup context (i.e., perceived illegitimate intergroup relationships) led to a preference for collective strategies such as social competition through feelings of anger (see also Smith & Kessler, 2004).

In their model of collective action, Van Zomeren et al. (2004) proposed an emotion-based pathway to collective action, whereby appraisals of injustice lead to collective action tendencies through group-based anger (see also Van Zomeren et al., 2008). Similarly, Smith, Cronin, and Kessler (2008) found that university faculty members' reported group-based anger mediated the relationship between their perceptions of collective disadvantage in terms of pay and benefits and their willingness to protest. In an attempt to extend Van Zomeren et al.'s model and examine the appraisals and emotions that underlie different forms of collective action, Tausch et al. (2011) compared normative (e.g., participating in discussion meetings and demonstrations), non-violent non-normative (e.g., blocking buildings and streets), and violent non-normative (e.g., throwing stones and arson attacks on buildings) forms of collective action. These authors showed that the emotion-based pathway from appraisals of injustice to willingness to engage in collective action through anger held true for normative and more moderate, non-violent non-normative actions, but did not do so for more extreme, violent non-normative actions. Rather, it was contempt that mediated the effect of injustice appraisals on violent non-normative collective actions.

Along the same lines, research on sexism has examined emotion as an underlying psychological process that could account for the relation between perceptions of an intergroup relationship (i.e., perceived sexism) and collective action tendencies. Ellemers and Barreto (2009) examined how old-fashioned versus modern expressions of sexism impact on the likelihood that group-based disadvantage is perceived, anger at the source of such beliefs is elicited, and endorsement of collective action and collective protest behaviour are facilitated. These authors found that because blatant expressions of sexism are more likely to be perceived as sexist and

discriminatory, women exposed to old-fashioned sexism were more likely to experience anger at the source, and as a result to express support for collective action (Study 1) or to engage in collective protest (Study 3). Consistent with this, Becker and Wright (2011, Study 2) examined the impact of exposure to sexist ideologies on women's participation in collective action, and found that women confronted with hostile sexism experienced more negative emotions (e.g., anger), which in turn predicted greater participation in collective action.

1.2.1.2. Emotions that Demotivate Collective Action

Unlike the experience of attack emotions such as anger which, as argued above, is considered to be a potent motivator of offensive, confrontational action tendencies such as collective action (e.g., Frijda et al., 1989; Mackie et al., 2000; Smith, 1993; Van Zomeren et al., 2004), the experience of avoidance emotions such as fear and anxiety is more likely to lead to defensive, avoidant action tendencies (i.e., a willingness to move away from, avoid, disdain, or shun the outgroup; e.g., Devos et al., 2003; Mackie et al., 2000). A study conducted by Silver, Miller, Mackie, and Smith (2001; cited in Devos et al., 2003) provides empirical support for the role of fear in eliciting avoidance action tendencies. In the context of a threatening situation involving an altercation, these authors found that participants' weakness appraisals (i.e., perceptions of themselves as being in a relevant weak position) led to the experience of greater fear and, as a result, to greater inclination to move away from and avoid the outgroup. Participants' reported levels of fear mediated the effect of appraisals of weakness on avoidance action tendencies.

In an attempt to examine the emergence of fear as a group-based emotion, Dumont, Yzerbyt, Wigboldus, and Gordijn (2003) used the real-life context of the terrorist attacks perpetrated against the World Trade Center in New York on

September 11, 2001. These authors found that appraisals of the ingroup being the target of possible future attacks, and of uncontrollability and uncertainty regarding the ingroup's future outcomes led to the experience of greater group-based fear and elicited stronger fear-related, avoidant action tendencies and actual behaviours (e.g., searching for additional information about the events). According to the authors, the goal of such behaviours was to reduce fear-related appraisals, such as perceptions that the situation was uncertain and uncontrollable.

Miller, Cronin, Garcia, and Branscombe (2009) reported two experiments in which they investigated the extent to which the relative impact of feelings of anger and perceptions of group efficacy, two prominent predictors of collective action (e.g., Van Zomeren et al., 2004), differs depending on whether the emotional experience of fear is also taken into account as a predictor of collective action. These authors found that fear affected the impact of anger and group efficacy on collective action participation, in that the significance of the former in predicting collective action was underestimated and the significance of the latter was overestimated when fear was not assessed. Importantly, they demonstrated how competing emotional reactions in response to unfair treatment by an outgroup can adversely affect ingroup members' willingness to engage in collective action. Although exposure to unfair treatment can increase participants' engagement in collective action through the experience of anger, this mobilizing effect of anger can be negated by the experience of other negative emotions, such as fear and anxiety, which function as important inhibitors of collective action.

1.2.2. The Role of Identification in Motivating Collective Action

As De Weerd and Klandermans (1999) put it, the very definition of collective action implies "... some level of group identification" (p. 1074). Research informed

by the social identity tradition has demonstrated the important role of group identification in influencing group members' willingness to engage in collective action in response to the perception that the ingroup's disadvantaged position is illegitimate. Although conducted in various contexts, a consistent pattern of results emerges: The more individuals identify with a social group or a social movement, the more willing they are to participate in collective action. Examples include women's participation in collective action within a gender relations context (Kelly & Breinlinger, 1995), Dutch farmers' protest action (De Weerd & Klandermans, 1999), the older people's movement in Germany (Simon et al., 1998, Study 1), the gay men's movement in the United States (Simon et al., 1998, Study 2) and Germany (Stürmer & Simon, 2004b), trade union members (Kelly & Kelly, 1994; Veenstra & Haslam, 2000), and the anti-globalization movement (Cameron & Nickerson, 2009). Moreover, the experience of group-based or intergroup emotions is predicated on social identification. Only when people see themselves as interchangeable members of a group, rather than as unique individuals, are events appraised in terms of group outcomes, and emotions can be experienced on behalf of the ingroup.

Given that different group members may be more or less strongly identified with the ingroup, and to the extent that the experience of intergroup emotions depends on the individual's level of ingroup identification, IET suggests that highly identified group members should experience group-based emotions more intensely (Mackie, Silver, & Smith, 2004; Smith, et al., 2007). In a study conducted shortly after the September 2001 attacks on the United States, Mackie, Silver, Maitner, and Smith (2002; cited in Mackie et al., 2004) provided evidence for the role of ingroup identification in producing intergroup emotions. These authors found that the more strongly students at the University of California Santa Barbara identified as

Americans, the more anger and the more fear they reported feeling about terrorist attacks on their country.

Moreover, there is research evidence that identification predicts not only emotional reactions to a situation that is threatening for the ingroup, but also the associated action tendencies. Yzerbyt and colleagues (2003) showed that those who identify highly with the ingroup experienced more group-based anger and reported greater offensive action tendencies than low identifiers. Also, high identifiers were marginally less likely to report avoidance action tendencies than low identifiers. Consistent with this, Crisp, Heuston, Farr, and Turner (2007) provided evidence for the moderating role of ingroup identification within the context of soccer fans' reactions to a threatening ingroup situation (i.e., their team's loss). They found that following a match loss, high identifiers experienced more anger, and reported greater tendencies to approach the outgroup than low identifiers did.

1.2.2.1. Identification with Different Female Subtypes: Traditional Women versus Feminists

Prior research (e.g., Glick et al., 1997, Study 1; Noseworthy & Lott, 1984; Six & Eckes, 1991) has consistently identified two female subtypes, *traditional* and *non-traditional*, which reflect women's acceptance or rejection of traditional gender roles and socio-structural power relationships (Glick & Fiske, 1996). Traditional female subtypes (e.g., housewives/homemakers, mothers) are seen as consistent with traditional gender roles, and tend to be ascribed positive characteristics and to elicit favourable evaluations and paternalistic reactions. By contrast, non-traditional subtypes (e.g., career women/businesswomen, feminists) are viewed as violating traditional gender roles, and tend to evoke negative evaluations and aggressive responses (e.g., Glick et al., 1997; Haddock & Zanna, 1994; Sibley & Wilson, 2004).

Interestingly, traditional and non-traditional female subtypes can also form the basis for self-identification among women. According to Cameron and Lalonde (2001), gender identity is derived not only from membership of a gender category, but also from attitudes and beliefs regarding traditional gender-related roles and the nature of structural relations between men and women (i.e., ‘traditional’ or more conservative vs. ‘non-traditional’ or more egalitarian attitudes and beliefs). As a result, some women self-identify as ‘traditional’ or as ‘non-traditional’ or ‘feminists,’ based on their attitudes to gender-consistent roles and the nature of gender status relations.

In line with this reasoning, Becker and Wagner (2009) distinguished between different types of gender identity and found that these were related to different levels of women’s endorsement of sexist beliefs and participation in collective action. Specifically, their Gender Identity Model (GIM) distinguishes between strength of identification and content of identity (i.e., the preference for a traditional vs. progressive gender role). Four gender identity types can be derived: traditional identifiers, traditional non-identifiers, progressive identifiers, and progressive non-identifiers. Women who are highly identified with their gender ingroup and moreover prefer a progressive gender role fall within the “progressive identifiers” type. On the other hand, high identifiers who prefer a traditional gender role fall within the type of “traditional identifiers”. Whereas “progressive identifiers” perceive their gender group to be of lower status than men and are motivated to seek changes in the gender status relations, “traditional identifiers” regard women as positively distinct from men, rather than perceiving their gender group to be of lower status than men (Condor, 1984; cited in Becker & Wagner, 2009). Consequently, “traditional identifiers” do not challenge current gender status relations. Becker and Wagner (2009) argue that while

(strength of) identification motivates women to think and act on behalf of the ingroup, the content of identification directs their thinking and behaviour. Consistent with their argument, these authors found that highly identified women who prefer a progressive gender role showed a greater rejection of sexist beliefs and a greater participation in collective action, compared to highly identified women who prefer a more traditional gender role.

In line with these results, research on the role of identification in motivating collective action participation has demonstrated the importance of taking into account the specific content of social identity. In the context of gender relations, Kelly and Breinlinger (1995) conducted a study with the aim of exploring the role of identification processes in motivating participation in collective action. They found that although identification as women increased women's willingness to engage in collective action, the role of identification as feminist activists in motivating collective action was even more pronounced.

1.3. The Present Research

The present thesis consists of three empirical chapters which are based on manuscripts prepared for submission for publication. Although the introductions and some discussion points may show some overlap, this is done to ensure that they can be read independently of each other.¹ In Chapter 2 I present the results of two experiments that examined the ways in which exposure to hostile compared to benevolent sexist beliefs influences women's emotions (i.e., anger-frustration and security-comfort) and their readiness to engage in collective action aimed at competing with and outperforming men (i.e., social competition). In Chapter 3 I present the results of one experiment that tested whether the divergent effects of hostile sexism on social competition intentions are moderated by identification with different female subtypes (i.e., traditional women and feminists). Finally, in Chapter 4, I present the results of three experiments that examined whether the negative indirect effect of hostile sexism on social competition intentions through decreased confidence-related emotions also applies to women's intentions to engage in collective action for parity.

1.3.1. The Divergent Effects of Hostile Sexism on Social Competition Intentions

As noted above, overt manifestations of sexism are not in keeping with the egalitarian norms that currently prevail in most western democracies. As a result, the expression of covert and subtler forms of sexism has also become common in contemporary societies (e.g., Benokraitis & Feagin, 1995; Glick & Fiske, 1996; Swim & Cohen, 1997). Subtle forms of sexism are less likely than more blatant forms to be recognized as a form of sexism and discrimination (e.g., Barreto & Ellemers, 2005a,

¹ Given that this research was conducted under the supervisory support of Prof. Antony Manstead and Prof. Gregory Maio, I refer to the work as collective rather than personal (e.g., I use the pronoun "we" rather than "I").

2005b), and research attention has therefore shifted toward the insidious dangers of benevolent sexism. For example, it has been found that benevolent sexism negatively affects women's decisions to challenge the gender status quo by decreasing their engagement in collective action (Becker & Wright, 2011; Ellemers & Barreto, 2009). However, hostile sexism is still undeniably prevalent in cultures around the globe (e.g., Glick et al., 2000), and women who experience discrimination do not necessarily challenge it (e.g., Swim & Hyers, 1999).

Moreover, it has been shown that perceived sexism and discrimination not only leads to an increase in negative emotions such as anger (e.g., Ellemers & Barreto, 2009) but can also result in a decrease in positive emotions such as feelings of comfort (Swim et al., 2001), and that competing emotional reactions in response to unfair treatment by an outgroup can adversely affect ingroup members' willingness to engage in collective action (Miller et al., 2009). We therefore propose that exposure to hostile sexism, as well as giving rise to anger, can elicit emotions that in turn *demotivate* collective action. Women exposed to hostile sexism may experience lower levels of security and comfort, and as a result feel less ready to confront the outgroup through engaging in collective action.

Research attention has been focused on a wide array of collective actions that fit into Wright et al.'s (1990) distinction between normative collective actions and non-normative actions. The former consists of actions that conform to the norms of the existing social system, such as signing a petition or attending a rally, whereas the latter comprises actions that violate the existing social rules and threaten the existing social order, such as violent riots and bombings (see also Wright, 2009). Another important distinction that needs to be made relates to the specific goal of collective action. As the well-established definition of collective action (Wright et al., 1990)

suggests, collective action aims at “improving the condition of the entire group” (p. 995). Although this focus on social change is closely related to the notion of social competition (Tajfel & Turner, 1979), Tajfel and Turner also maintain that “[G]roup members ... may try to reverse the relative positions of the in-group and the out-group on salient dimensions” (p. 44). Hence, improving the ingroup’s relatively disadvantaged status position can entail either *striving to achieve equality* with the higher-status outgroup (i.e., collective action for parity) or *striving to outperform* the higher-status outgroup (i.e., social competition). This distinction is important because the latter strategy is likely to be more demanding, and being able to understand the precursors to women’s intentions to engage in social competition can offer us a better insight into the conditions under which women fulfil their potential to the fullest extent.

Prior research on sexism (Becker & Wright, 2011; Ellemers & Barreto, 2009) has focused on collective action that seeks to change an unjust intergroup situation by improving women’s relative status position (e.g., signing a petition or participating in a protest demanding equal rights), and thereby achieve equal status for women. The focus of the current research is on competitive collective action; that is, we examine attempts to change the unjust intergroup situation through women competing with men to achieve a higher status than men.

In Chapter 2, we simultaneously tested opposing affective mechanisms for effects of hostile sexism on women’s collective action intentions in the context of a relatively unresearched form of collective action, namely social competition. We predicted that exposure to hostile sexist beliefs would not only increase women’s feelings of anger and frustration but would also lead to a decrease in feelings of security and comfort. We also predicted that increased anger and frustration would

enhance women's readiness to engage in social competition, whereas decreased security and comfort would inhibit this readiness. In a first study, we experimentally induced high versus low levels of security-comfort with the aim of providing experimental evidence for the proposed causal link between these emotions and intentions to engage in social competition. A second experiment investigated the effect of hostile sexism on women's emotional reactions and readiness to engage in social competition. We used a multiple mediator model to test two emotional pathways: a positive indirect pathway through anger and frustration, and a negative indirect pathway through security and comfort (see Figure 1).

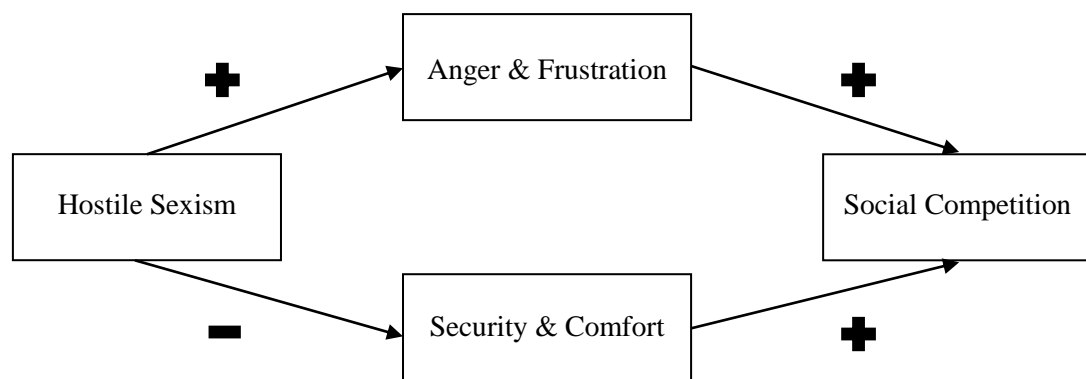


Figure 1. Conceptual multiple mediator model of the indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-frustration and security-comfort.

1.3.2. The Moderating Role of Identification

As discussed above, level of ingroup identification is an important predictor of group-based emotions and the associated action tendencies. For example, high identifiers (compared to low identifiers) experience more group-based anger in response to a threatening ingroup situation (e.g., Mackie et al., 2004), and report greater offensive action tendencies (e.g., Yzerbyt et al., 2003). Moreover, gender

identity is not only derived from membership of a gender category (e.g., women) but also from women's attitudes to gender-consistent roles and the nature of gender status relations. As a result, some women might self-identify as 'traditional women' and others as 'feminists.' Furthermore, distinguishing between the level of identification and the identity content (i.e., preference for a traditional vs. progressive gender role) is important in explaining women's endorsement of sexist beliefs and participation in collective action. High identifiers who prefer a progressive gender role are more likely to reject sexist beliefs and to participate in collective action, compared to highly identified women who prefer a more traditional gender role (Becker & Wagner, 2009).

Consistent with this reasoning, we hypothesized that the way in which women are affected by and the extent to which they reject hostile sexist beliefs is likely to depend on the attitudes and beliefs they hold regarding gender relations (i.e., 'traditional' or more conservative vs. 'non-traditional' or more egalitarian), and consequently their subsequent level of identification with a particular female subtype (i.e., traditional women or feminists). Specifically, exposure to hostile sexism might not be perceived as equally threatening to highly identified traditional women and highly identified feminists, and as a result might lead to divergent emotional reactions and action intentions.

In an attempt to extend our previous work (as reported in Chapter 2), in Experiment 3 reported in Chapter 3 we tested whether the extent to which women identify with different types of women, namely traditional women and feminists, moderates the effect of exposure to hostile sexism (as compared to benevolent sexism) on their emotions and competitive collective action intentions. We predicted that exposure to hostile sexism would lead women who identify highly with

traditional women to experience lower levels of confidence-related emotions, and as a result to be less motivated to engage in social competition. We also predicted that exposure to hostile sexism would lead highly identified feminists to experience higher levels of anger-related emotions, and thereby to report increased intentions to engage in social competition. We used a moderated multiple mediator model to test the role of identification with female subtypes in moderating the two emotional pathways (see Figure 2).

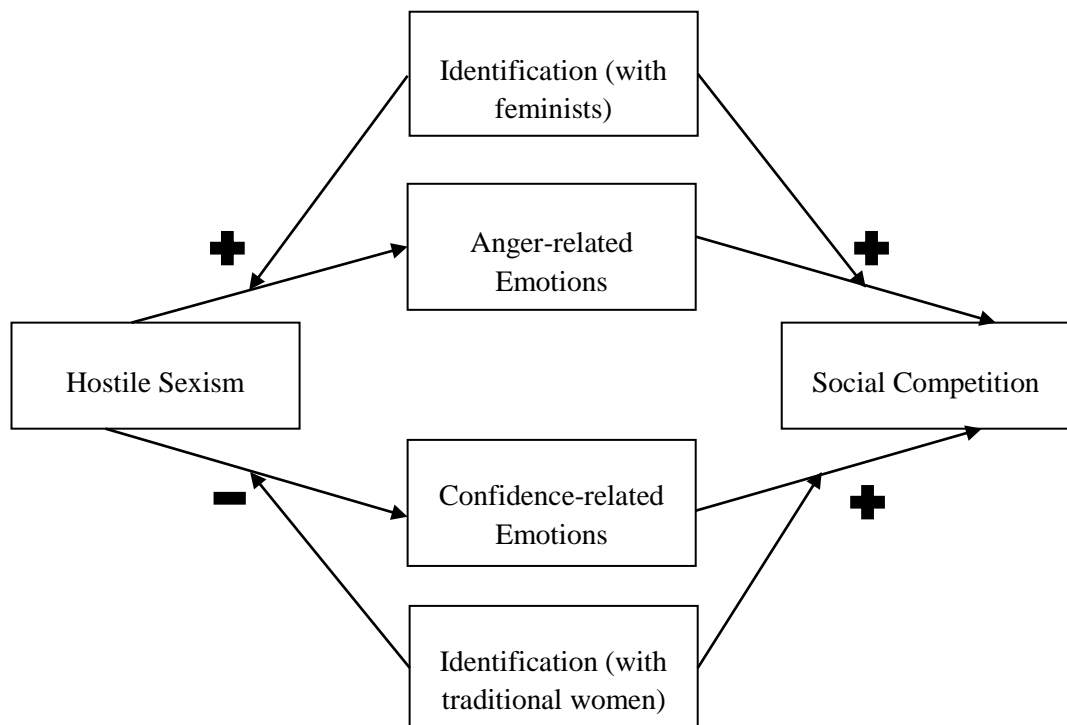


Figure 2. Conceptual moderated multiple mediator model of the conditional (upon the level of identification with different female subtypes) indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-related and confidence-related emotions.

1.3.3. Testing the Divergent Effects of Hostile Sexism on Different Types of Collective Action

In the third and final part of the current research we investigated whether the divergent effects of hostile sexism also apply to collective action aimed at achieving parity. In Chapter 4 I report three experiments in which we examined the impact of hostile (as compared with benevolent) sexism on women's emotional reactions, and their subsequent intentions to engage in collective action aimed at outperforming men (Experiment 4) or at achieving parity with men (Experiments 5 and 6). As in the previous experiments, we used a multiple mediator model to examine the role of emotions as the underlying psychological process through which women's collective action intentions can be strengthened or weakened. Finally, in Experiment 6 we examined whether participants' intentions to engage in collective action for parity would also be reflected in a quasi-behavioural measure.

1.3.4. Summary

To sum up, the present thesis comprises three empirical chapters based on manuscripts prepared for submission for publication and aims to examine the way in which exposure to hostile sexism influences women's (competitive) collective action intentions, by investigating the mediating role of emotions and the moderating role of identification in this process. Chapter 2 focuses on the role of emotions of anger and frustration and emotions of security and comfort in accounting for the relation between exposure to hostile (vs. benevolent) sexist beliefs about women, and women's readiness to engage in social competition with men. Prior research suggests a positive indirect pathway to collective action through group-based anger (e.g., Becker & Wright, 2011; Ellemers & Barreto, 2009). We propose and show that a negative indirect pathway, through security and comfort, may also apply.

In an effort to understand why exposure to hostile sexism has divergent effects on social competition intentions, the research reported in Chapter 3 examines whether the mediating role of emotion is moderated by identification. More specifically, we test whether exposure to hostile sexism decreases social competition intentions through decreased confidence-related emotions and increases social competition intentions through increased anger-related emotions, and whether these differing emotional reactions vary as a function of women's level of identification with traditional women and feminists, respectively. We show that high (vs. low) identifiers with traditional women who are exposed to hostile sexism are more likely to experience lower levels of confidence-related emotions, and as a result be less motivated to engage in social competition. We also show that increased anger is more likely to lead highly identified traditional women to form increased social competition intentions.

Finally, the research reported in Chapter 4 examines whether the divergent effects of hostile sexism on women's social competition intentions also apply to women's intentions to engage in collective action aimed at achieving parity. We show that exposure to hostile sexism induces higher levels of anger-related emotions, and thereby increases women's readiness to engage in social completion and in collective action for parity. We also show that exposure to hostile sexism undermines women's confidence-related emotions, and thereby demotivates their social competition intentions but does not affect their readiness to engage in collective action for parity.

Chapter 2: Hostile Sexism (De)motivates Women's Social Competition

Intentions: The Contradictory Role of Emotions²

Which of the following views would be less likely to inspire women to compete with men in order to fill high-status positions: Stating that women's lack of competence and efficiency makes them unsuitable for high-status managerial roles, or that women's superiority in socio-emotional warmth and sensitivity makes them suitable for domestic roles? Although both views cast doubt on women's ability to fill high-status positions, they do so in different ways. The former view is a blatantly sexist remark, with a hint of hostility. By contrast, the latter view damns women with faint praise – its small 'compliment' masks a larger negativity (through the ascription of a lower-status role). In the present research we examine the ways in which blatant compared to subtle forms of sexism, which have been characterized as hostile and benevolent sexism, respectively (Glick & Fiske, 1996), influence women's intentions to compete with men.

Hostile sexism comprises overtly negative and competitive beliefs. Women are viewed as seeking to outrun men in terms of power and to exert control over them, either through their feminist ideology or through their sexuality. Benevolent sexism consists of apparently positive and favourable beliefs that are nevertheless sexist because they portray women as warm and sensitive but at the same time as incompetent or weak and therefore in need of men's protection.

Both hostile and benevolent sexism trade on gender stereotypes, convey the same beliefs about women (e.g., that women are less competent and capable than men, and therefore less suitable for taking on high status positions), and serve to

² This chapter is based on Lemonaki, E., Manstead, A. S. R., & Maio, G. R. (2015a). Hostile sexism (de)motivates women's social competition intentions: The contradictory role of emotions. *British Journal of Social Psychology*. doi: 10.1111/bjso.12100

justify male dominance and therefore to promote and maintain gender inequality. However, hostile sexism is a more obvious way of achieving this, whereas benevolent sexism relies on more subtle and gentle justifications (Glick & Fiske, 1996, 1997, 2001a, 2001b). Specifically, hostile sexism serves to justify men's higher status and power by asserting their superior competence. Benevolent sexism also justifies men's privileged position in the social hierarchy, but does so by highlighting women's superiority in socio-emotional warmth and thereby implying a lack of competence. Jackman (1994) argues that paternalistic (as compared with hostile) justifications of social hierarchies are more likely to be accepted, and therefore more effective in minimizing resistance and maximizing compliance from low-status groups. Hostile assertions of women's lack of competence would not have been as effective in maintaining the current gender hierarchy as the combination of hostile and benevolent sexism (Cuddy, Fiske, & Glick, 2008; Glick & Fiske, 2001c). Hostile sexism deters women from seeking higher status roles. By contrast, benevolent sexism provides incentives for remaining in lower status, gender-traditional roles, eliciting women's cooperation in their own subordination (see also Jackman, 1994).

Because overt manifestations of sexism are no longer in keeping with egalitarian societal norms and beliefs, the expression of covert and subtler forms of sexism has also become common in contemporary societies (e.g., Benokraitis & Feagin, 1995; Glick & Fiske, 1996; Swim & Cohen, 1997). Subtle forms of sexism are more likely to go unnoticed and remain unchallenged (e.g., Barreto & Ellemers, 2005a, 2005b), and research attention has therefore shifted toward the insidious dangers of benevolent sexism. For example, it has been found that benevolent sexism negatively affects women's decision to challenge the gender status quo by decreasing their engagement in collective action (Becker & Wright, 2011). However, it is

important not to overlook the damaging consequences of hostile sexism. Hostile sexism is still undeniably prevalent in cultures around the globe (Glick et al., 2000). In their daily lives, women report experiencing both benevolent and hostile expressions of sexism (Swim, Hyers, Cohen, & Ferguson, 2001). Moreover, blatantly discriminatory acts such as the recent banning of women from 36 universities in Iran (Tait, 2012) speak for themselves. In the current research, we focus on a way in which hostile sexism may influence women's collective attempts to challenge the status quo.

Perceptions of and Reactions to Hostile and Benevolent Sexism

Previous research has shown that hostile sexist beliefs are more likely to be recognized as a form of prejudice compared to benevolent sexist beliefs (Barreto & Ellemers, 2005b). Moreover, people who endorse hostile sexist views, compared to those who express benevolent sexist views, are perceived as more prejudiced, are evaluated less positively (see also Killianski & Rudman, 1998), and elicit more anger (see also Barreto & Ellemers, 2005a). Ellemers and Barreto (2009) argue that because blatant expressions of sexism are more likely to be perceived as a form of sexism and discrimination, and are immediately annoying and irritating, women exposed to hostile sexism are more likely to challenge current gender relations by expressing support for collective action. Consistent with this argument, Becker and Wright (2011, Study 2) found that women's exposure to hostile sexist views increased negative emotions (e.g., anger) and, as a result, increased women's participation in collective action.

Collective action occurs when a group member acts as a representative of the group and his or her action is directed at improving the current disadvantaged position of the entire group (Wright, Taylor, & Moghaddam, 1990). Prior research on sexism (e.g., Becker & Wright, 2011) has focused on collective action that seeks to change an

unjust intergroup situation by improving women's relative status position (e.g., signing a petition or participating in a protest demanding equal rights), and thereby achieve equal status for women. Our research focuses on competitive collective action. More specifically, we examine attempts to change the unjust intergroup situation through women competing with men to achieve higher status than men. Both collective action for parity and social competition entail group members' attempts to improve the ingroup's relative status position. The difference between the two is that when group members are willing to engage in social competition, they seek to outperform the higher-status outgroup. In Tajfel and Turner's (1979) terms, this is social competition: "[G]roup members ... may try to reverse the relative positions of the in-group and the out-group on salient dimensions" (p. 44). Thus, the aspiration is to outperform the outgroup, not merely to achieve parity. Such a competitive focus might seem to be at odds with general principles of social justice, but in a competitive environment winners do not strive merely to keep up; they believe in their potential to outperform others. Striving for parity, it could be argued, is likely to result in modest performance, whereas striving to outperform can lead people to exceed even their own expectations. It is therefore important to understand the precursors to women's intentions to engage in social competition. These precursors can help to understand the conditions under which women fulfil their potential to the fullest extent.

There are reasons for thinking that hostile sexism might indirectly impair social competition, rather than merely facilitating it. These reasons become clear when we consider the likely emotional consequences of hostile sexism.

The Role of Emotions in Motivating Social Competition

According to Smith's (1993, 1999) theory of intergroup emotions, when social identity is salient, group members' appraisals of a given intergroup situation (e.g.,

injustice) triggers specific emotions (e.g., group-based anger) toward outgroup members. In turn, these specific emotional experiences lead to specific types of intergroup behaviour (e.g., challenging the injustice collectively by confronting the outgroup; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). Mackie, Devos, and Smith (2000), for example, showed that feelings of anger toward the outgroup mediated the relation between participants' perceptions of the intergroup situation and their willingness to "move against" the outgroup (e.g., to confront the outgroup or argue with them). Consistent with the above, Mummendey, Kessler, Klink, and Mielke (1999) showed that the preference for collective strategies such as social competition in response to illegitimate intergroup relationships was mediated by feelings of anger (see also Smith & Kessler, 2004). Moreover, Van Zomeren, Spears, Fischer, and Leach (2004) proposed an emotion-based pathway to collective action, whereby appraisals of injustice lead to collective action tendencies through group-based anger (see also Van Zomeren, Postmes, & Spears, 2008).

In the same vein, research on the effects of perceived sexism on collective action has explored the role of emotions in facilitating group members' willingness to act collectively. Emotions are examined as the underlying psychological process that could account for the relation between perceptions of an intergroup situation (i.e., perceived sexism) and collective action tendencies. As Ellemers and Barreto (2009) noted, perceived group-based disadvantage (perceived discrimination) gives rise to the emotion of anger toward the outgroup (the source of discrimination), which in turn could be considered an important motivation for collective action.

However, perceived sexism and discrimination leads not only to an increase in negative emotions, such as anger, but can also result in a decrease in positive emotions, such as feelings of comfort and feelings of collective self-worth. For

example, Swim and colleagues (2001) have shown that women experience decreased levels of comfort after being confronted by sexism. Other studies (e.g., Branscombe, Schmitt, & Harvey, 1999; Fischer & Bolton Holz, 2007; Leonardelli & Tormala, 2003; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002) have shown a negative association between perceived discrimination and feelings about the worth of one's social group (i.e., collective self-esteem).

Consistent with this reasoning, Miller, Cronin, Garcia, and Branscombe (2009) demonstrated how competing emotional reactions in response to unfair treatment by an outgroup can adversely affect ingroup members' willingness to engage in collective action. Specifically, these authors showed that although exposure to unfair treatment can increase participants' engagement in collective action through the experience of anger, this mobilizing effect of anger can be negated by the experience of other negative emotions, such as fear and anxiety, which inhibit collective action.

We therefore propose that exposure to hostile sexism, as well as giving rise to anger, can elicit emotions that will in turn *demotivate* collective action. Women exposed to hostile sexism may experience lower levels of security and comfort. Hostile sexism may thereby make them feel less ready to confront the outgroup and challenge the gender status quo because they feel less secure and comfortable about their ingroup (i.e., a sense of lack of collective self-confidence). We postulate that any decrease in emotions of security and comfort is likely to inhibit the drive for social competition. Engaging in collective action is stressful and uncertain given that group members do not know, in advance, whether their efforts will have the desired outcome. Moreover, this uncertainty should vary as a function of the aim of the collective action. For example, aiming to compete with and outperform a higher status

outgroup is presumably more challenging than aiming to achieve equality with this outgroup. Therefore, when group members are striving to outperform an outgroup, which is moreover of a higher status, they need to feel secure and comfortable about the ingroup's collective ability to attain its goals (Experiment 1), and about their ingroup in general (Experiment 2). If hostile sexism depresses security and comfort, it is likely to undermine women's readiness to engage in social competition with men.

The Present Research

We report two experiments to test the above reasoning. In the first experiment we provide evidence for the proposed causal link between emotions of security and comfort and women's readiness to engage in social competition with men. More specifically, we experimentally induced high versus low levels of security and comfort and tested whether lower levels of security and comfort would reduce women's readiness to compete socially with men. In Experiment 2 we focus on the role of emotions of anger and frustration and emotions of security and comfort in accounting for the relation between (a) exposure to hostile (vs. benevolent) sexist beliefs about women and (b) women's readiness to compete socially with men. Prior research suggests a positive indirect pathway to collective action through group-based anger (e.g., Becker & Wright, 2011; Mackie et al., 2000; Van Zomeren et al., 2004). We propose that a negative indirect pathway, through security and comfort, may also apply. Building on this, we use a multiple mediator model to test these two pathways.

Experiment 1

The negative indirect emotional pathway through security-comfort in our proposed model is less well empirically supported than is the positive indirect emotional pathway through anger. In Experiment 1 we therefore examined the influence of feelings of security and comfort on social competition intentions. In

particular, we sought to provide experimental evidence for the proposed causal effect of feelings of security and comfort on women's readiness to engage in social competition with men. This was done by varying information about the emotions of members of the participants' gender ingroup (i.e., young women at UK universities), and operationalized in the context of women's accomplishments and their ability to advance their collective interests. Previous research (e.g., Moons, Leonard, Mackie, & Smith, 2009) has shown that information about an ingroup's typical emotion can effectively induce convergent group-based emotion through emotional self-stereotyping. The participants' task was to read a fictitious newspaper article and then rate their emotions and social competition intentions.

Method

Participants. Participants were 83 undergraduate female students at Cardiff University who received partial course credit for their participation. Data from five participants were omitted from the main analyses following outlier analysis. These participants had scores on the dependent measure that were beyond the range defined by the whiskers in Tukey's (1977) box plot (i.e., their scores were 1.5 times the interquartile range below the 25th percentile). The age of the 78 participants who comprised the final sample ranged from 18 to 35 years ($M = 18.67$, $SD = 2.21$).

Procedure and measures. Participants first read a fictitious newspaper article that provided information about women's representation in medicine or business schools and also ostensibly summarized the results of a study. The study in question surveyed a sample of female respondents who reported feeling either "secure and comfortable" or "insecure and uncomfortable" about women's abilities to work together to advance women's interests. The two versions of the newspaper article (see Appendix 1) included the same introductory paragraph: "It is nearly 100 years since

women, after lengthy collective efforts, finally earned the right to vote, in 1920. This was a great accomplishment for women.” In the feeling secure and comfortable condition the text proceeded, “And they did not stop there. During the subsequent years, women have proven that when they act together they can achieve a lot. For example, consider the greatly increased number of women who study medicine. (...) And the future seems even brighter. According to the results of a recent study, surveying more than 2000 young women at universities around the UK, more than 95% of the respondents reported that they feel secure and comfortable about women’s abilities to work together to advance women’s interests. (...)” In the feeling insecure and uncomfortable condition the same passage read, “However, progress since then has been limited. During the subsequent years, despite women’s collective efforts to improve their position in society, they have managed to achieve relatively little. For example, consider that women are still highly underrepresented in most MBA programs. (...) And the future does not seem much brighter. According to the results of a recent study, surveying more than 2000 young women at universities around the UK, more than 95% of the respondents reported that they feel insecure and uncomfortable about women’s abilities to work together to advance women’s interests. (...)”

Social competition. We measured participants’ competitive collective action intentions using three social competition items adapted from Blanz, Mummendey, Mielke, and Klink (1998; see also Mummendey et al., 1999), adjusted to the context of gender relations. Participants were asked to indicate their agreement with each of the following items: “We women can prove that we are more efficient and suitable for highly demanding positions than men,” “We women will make it clear to men that we are more competent than they are,” and “We women will soon show that we are better

fitted to holding power compared to men” ($\alpha = .73$). These items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*strongly*).

Emotions. Participants were asked to indicate the extent to which they, as women, felt each of three emotions (*secure*, *comfortable* and *confident*) after reading the newspaper article. Responses were given on a 7-point rating scale ranging from 1 (*not at all*) to 7 (*extremely*). We computed an emotion scale by averaging responses to these three items ($\alpha = .93$).

Manipulation check. Participants were asked to indicate the extent of their agreement with each of the following two statements: “As a woman, I feel secure about our ability to match, and even exceed, men’s pay in the workplace,” and “As a woman, I feel comfortable about our ability to call for and eventually achieve much greater representation of women in positions of power.” Responses to these items were rated on a 7-point scale (1 = *not at all*, 7 = *strongly*). We computed a manipulation check scale by averaging responses to these two items ($r = .61$, $p < .001$). In order to test our argument that emotions of security and comfort are related to collective self-confidence about women’s ability to advance their collective interests we tested the association between the manipulation check scale and the emotion scale. As expected, the two scales were significantly correlated ($r = .38$, $p = .001$).

Results

Manipulation check. An independent samples *t*-test comparing the two experimental conditions on the manipulation check scale revealed a significant effect, $t(66.80) = 4.04$, $p < .001$. Participants in the feeling insecure and uncomfortable condition endorsed the manipulation check statements ($M = 4.90$, $SD = 1.39$) less

strongly than did participants in the feeling secure and comfortable condition ($M = 5.96$, $SD = 0.89$).

Emotional reactions. An independent samples t -test comparing the two experimental conditions on the emotion scale revealed a significant effect, $t(76) = 10.81$, $p < .001$. Participants in the insecure and uncomfortable condition reported lower levels of security-comfort ($M = 3.23$, $SD = 0.95$) than did participants in the secure and comfortable condition ($M = 5.62$, $SD = 1.00$).

Security-comfort and social competition. To investigate the causal influence of emotions of security and comfort on social competition intentions we used the PROCESS procedure for SPSS (Hayes, 2013, model 4). Readiness to engage in social competition was the outcome variable, the emotion induction manipulation was entered as the independent variable, and emotions of security and comfort were entered as the mediating variable. Means, standard deviations and bivariate correlations between the two measures are reported in Table 1.

Table 1

Intercorrelations, Means and Standard Deviations for all Measures (Experiment 1)

	<i>M</i>	<i>SD</i>	1	2
1. Social competition	4.51	0.95	-	
2. Security-comfort	4.40	1.54	.33**	-

Note: ** $p < .01$.

The emotion induction manipulation significantly predicted participants' emotions ($B = -2.39$, $SE = .22$, $p < .001$) and their readiness to engage in social competition ($B = -.46$, $SE = .21$, $p = .031$), indicating that participants in the feeling insecure and uncomfortable condition experienced weaker feelings of security-

comfort and were significantly less ready to engage in social competition than were participants in the feeling secure and comfortable condition. Additionally, participants' feelings of security-comfort ($B = .22$, $SE = .11$, $p = .040$) were significant predictors of social competition. Finally, the direct effect of the manipulation on social competition reduced to non-significance when the proposed mediator was taken into account, $B = .07$, $SE = .33$, $p = .828$ (see Figure 3). We assessed the significance of the indirect path using 95% bias-corrected confidence intervals with 5000 bootstrap resamples, $B = -.53$, $SE = .28$, 95% CI = [-1.121, -.002].

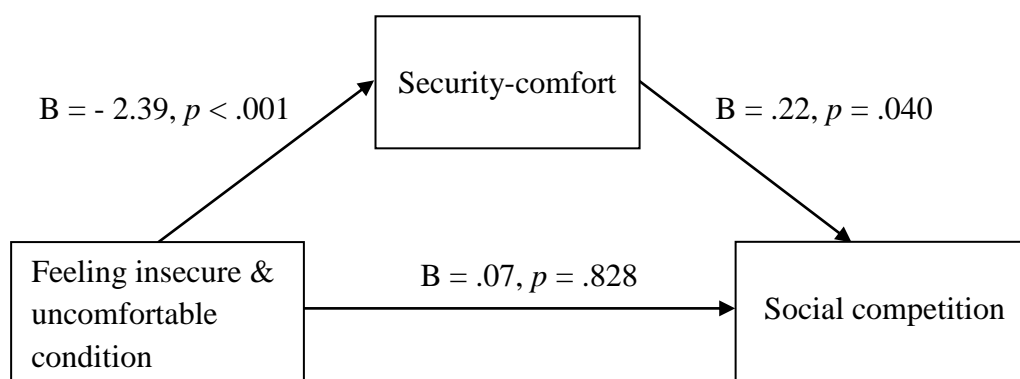


Figure 3. Simple mediation model for the relation between emotions of security-comfort and readiness to engage in social competition (Experiment 1, $N = 78$; 5000 resamples).

Discussion

In Experiment 1 we showed that experimentally induced lower levels of security-comfort resulted in weaker readiness on the part of women to compete socially with men. This provides experimental support for the proposed causal link between emotions of security and comfort and social competition intentions.

Experiment 2

In Experiment 2 we tested our main theoretical model in which exposure to hostile sexism has divergent effects on women's readiness to engage in social competition through increasing anger-frustration, and decreasing security-comfort. Women participants were presented with a short newspaper article featuring statements that contained hostile or benevolent sexist beliefs, or neutral views. We measured participants' emotions and readiness to engage in social competition after they had read this article.

Two principal predictions were tested. First, in accordance with evidence that blatant expressions of sexism increase women's collective action intentions via their effect on anger (e.g., Ellemers & Barreto, 2009), we predicted that being exposed to an overtly hostile set of beliefs about women would increase women's anger and frustration, and thereby enhance collective action intentions. Prior research has demonstrated that exposure to hostile sexism leads to collective action for parity through anger (Becker & Wright, 2011, Study 2). In the present experiment, we tested whether this effect of hostile sexism also applies to women's collective attempts to outperform men through social competition.

Second, we tested whether exposure to an overtly hostile set of beliefs about women leads women to feel less comfortable and secure, and thereby makes them less ready to engage in social competition. Prior research (Miller et al., 2009) has shown how approach negative emotions such as anger (which predicts collective action) and avoidance negative emotions such as fear (which inhibits collective action) counteract each other's influence on willingness to participate in collective action. In the present research we examine how exposure to hostile beliefs differentially influences negative emotions (anger and frustration) and positive emotions (security and comfort),

increasing the former and decreasing the latter. Because both types of emotion are thought to enhance social competition, hostile sexism should have divergent effects on women's readiness to engage in social competition.

Method

Participants and experimental design. Participants were staff and students from Cardiff university ($N = 238$).³ Data from 3 participants were omitted from the main analyses because they reported being male. The 235 who comprised the final sample were women aged between 18 and 59 years ($M = 24.14$, $SD = 8.85$). The independent variable was sexism type (Hostile sexism vs. Benevolent sexism vs. Neutral views). This was manipulated by altering the content of an article read by participants. The dependent variable was participants' readiness to engage in social competition, and the proposed mediators were emotions of anger and frustration and emotions of security and comfort.

Procedure. We informed participants that the purpose of this study was to examine factors that shape perceptions of different social groups. Participants first read a fictitious newspaper article that ostensibly summarized some survey research results. The 'hostile sexism' or 'benevolent sexism' versions of the article presented

³ Data for this experiment were collected through two different methods. One hundred and twenty seven of our participants were undergraduate psychology students ($M = 18.79$) who were invited in a lab to complete the experiment. The remaining 111 were staff and students ($M = 30.43$) from Cardiff university who were recruited via the university's electronic noticeboard and completed the experiment online. These were initially intended to be two separate studies. The aim of the online experiment was to replicate the findings of the former experiment using a broader demographic range of participants. Since the only methodological differences between these two were the age range of participants and the method of data collection (face-to-face vs. online) we decided to combine the two datasets and use the method of data collection as a potential moderator. We did not find evidence of moderation. The interactions between sexism type and data collection method on anger and frustration, $B = .09$, $p = .829$, and between anger and frustration and data collection method on social competition, $B = .18$, $p = .101$, were not significant, indicating that the positive indirect effect of hostile sexism on readiness to engage in social competition through anger and frustration was not moderated by the method of data collection. Also, the interactions between sexism type and data collection method on security and comfort, $B = -.19$, $p = .609$, and between security and comfort and data collection method on social competition, $B = -.06$, $p = .661$, were not significant, indicating that the negative indirect effect through security and comfort was not moderated by the method of data collection.

hostile or benevolent sexist views about women (based on items from the Ambivalent Sexism Inventory; Glick & Fiske, 1996); the neutral views article presented neutral views about women and men.

All three versions of the newspaper article (see Appendix 2) included the same introductory paragraph: “Are men and women fundamentally different? Do they think and communicate in different ways? ... Those and other questions were addressed in a large-scale study published this month by the National Institute of Social Research (N.I.S.R) based on more than two thousand participants living in the UK. According to this survey...” In the hostile sexism condition the text proceeded with a number of statements describing hostile sexist views about women (based on items from the Ambivalent Sexism Inventory; Glick & Fiske, 1996), such as “...people tend to believe that, under the pretence of striving for equality, women try to gain special favours at the expense of men.” In the benevolent sexism condition the same passage included a number of statements describing benevolent sexist views about women (based on items from the Ambivalent Sexism Inventory; Glick & Fiske, 1996), such as “...people tend to believe that women are superior to men in terms of good taste and have a more refined sense of culture.” In the neutral views condition the passage continued, “...people tend to believe that both men and women like keeping fit and healthy. Nevertheless, women prefer to go to the gym, while men prefer to jog or cycle in the park.”

Measures

Social competition. We measured participants’ competitive collective action intentions using the same three social competition items as those used in Experiment 1 ($\alpha = .88$).

Emotions. Participants were asked to rate the extent to which they, as women, felt each of four emotions (two negative: *angry* and *frustrated*; and two positive: *secure* and *comfortable*) after reading the article.⁴ These emotions have been previously used to measure participants' feelings of anger (e.g., angry, indignant, frustrated, disappointed; Barreto & Ellemers, 2005b; Ellemers & Barreto, 2009) and comfort (e.g., self-confident, secure, competent, comfortable; Swim et al., 2001) after exposure to sexism. We computed an 'anger and frustration' and a 'secure and comfort' emotion scale by averaging responses to the two negative ($r = .80, p < .001$) and two positive ($r = .66, p < .001$) emotion items, respectively. The two emotion scales were negatively correlated ($r = -.38, p < .001$).

Manipulation check. Participants were asked to indicate the extent of their agreement with the following two items: "The survey described some frankly positive beliefs about women," and "The survey described some frankly negative beliefs about women" (reverse-coded). Responses to these items were rated on a 7-point scale (1 = *not at all*, 7 = *strongly*). We computed a manipulation check scale by averaging responses to these two items ($r = .39, p < .001$).

Results

Manipulation check. The manipulation check showed that the manipulation of sexism type was successful. A one-way ANOVA with sexism type as the independent variable and the manipulation check scale as the dependent variable revealed a significant main effect of sexism type, $F(2, 232) = 88.23, p < .001, \eta^2 = .43$. Participants in the hostile sexism condition evaluated the survey as significantly

⁴ Participants were also asked to complete an exploratory measure of the extent to which they felt each of these emotions "toward the survey participants." The purpose was to assess participants' reactions to the *source* of the hostile or benevolent beliefs, which in this case was the survey participants. This exploratory measure was not included in the main analysis.

less positive about women ($M = 2.16$, $SD = 1.13$) compared to the participants in the benevolent sexism ($M = 4.22$, $SD = 1.24$) and the neutral views conditions ($M = 4.33$, $SD = 1.10$; $ps < .001$). Participants in the benevolent sexism and neutral views conditions did not differ significantly in their evaluations ($p = .814$).

Sexism type and emotional reactions. Two one-way ANOVAs were performed, one with the combined anger-frustration index as the dependent variable and the other with the combined security-comfort index as the dependent variable, with sexism type (Hostile sexism vs. Benevolent sexism vs. Neutral views condition) as the independent variable. The main effect of sexism type on emotions of anger and frustration was significant, $F(2, 232) = 45.69$, $p < .001$, $\eta^2 = .28$, indicating that exposure to the hostile sexism article led to significantly more anger and frustration ($M = 4.36$, $SD = 1.58$) than did exposure to the benevolent sexism ($M = 3.22$, $SD = 1.57$) or neutral views articles ($M = 2.05$, $SD = 1.35$). All three conditions differed significantly from each other ($ps < .001$).

The main effect of sexism type on security and comfort was also significant, $F(2, 232) = 7.19$, $p = .001$, $\eta^2 = .06$, indicating that exposure to the hostile sexism article led to significantly lower security and comfort ($M = 2.73$, $SD = 1.33$) than did exposure to the benevolent sexism ($M = 3.46$, $SD = 1.38$) or the neutral views articles ($M = 3.42$, $SD = 1.39$), $ps < .05$. The benevolent sexism and neutral views conditions did not differ significantly ($p = .981$).

Effects of hostile sexism on social competition through emotions. To determine whether there were indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-frustration and security-comfort, we used the PROCESS procedure to test a process model (Hayes, 2013, model 4) that provides a method to estimate direct and indirect effects with multiple

mediators (see also Preacher & Hayes, 2008). Dummy coding was used to represent the three experimental conditions (Aiken & West, 1991; Cohen, Cohen, West, & Aiken, 2003). Dummy-coded variable D1 compared the hostile sexism condition with the benevolent sexism condition (dummy coding: hostile sexism = 1, benevolent sexism = 0, neutral views = 0), and dummy-coded variable D2 compared the neutral views condition with the benevolent sexism condition (dummy coding: neutral views = 1, benevolent sexism = 0, hostile sexism = 0). Readiness to engage in social competition was the outcome variable, D1 was entered as the independent variable, and emotions of anger and frustration and of security and comfort were entered as the proposed mediating variables. Because the independent variable had more than two levels, D2 was entered as a covariate. Means, standard deviations and bivariate correlations between all measures are reported in Table 2.

Table 2

Intercorrelations, Means and Standard Deviations for all Measures (Experiment 2)

	<i>M</i>	<i>SD</i>	1	2	3
1. Social competition	3.40	1.45	-		
2. Anger and frustration	3.23	1.77	-.03	-	
3. Security and comfort	3.20	1.40	.26***	-.38***	-

Note: *** $p < .001$.

Sexism type significantly predicted participants' readiness to engage in social competition, $B = -.68$, $SE = .23$, $p = .003$, indicating that hostile sexism led less to social competition than did benevolent sexism (D1). Additionally, sexism type reliably predicted anger-frustration ($B = 1.14$, $SE = .24$, $p < .001$) and security-comfort ($B = -.73$, $SE = .22$, $p = .001$), indicating that hostile sexism led to stronger

feelings of anger and frustration and to weaker feelings of security and comfort than did benevolent sexism.⁵ Furthermore, participants' feelings of anger-frustration ($B = .15, SE = .06, p = .023$) and of security-comfort ($B = .29, SE = .07, p < .001$) were significant predictors of social competition. Finally, the direct effect of sexism type on social competition remained significant when the proposed mediators were taken into account, $B = -.64, SE = .23, p = .006$ (see Figure 4).

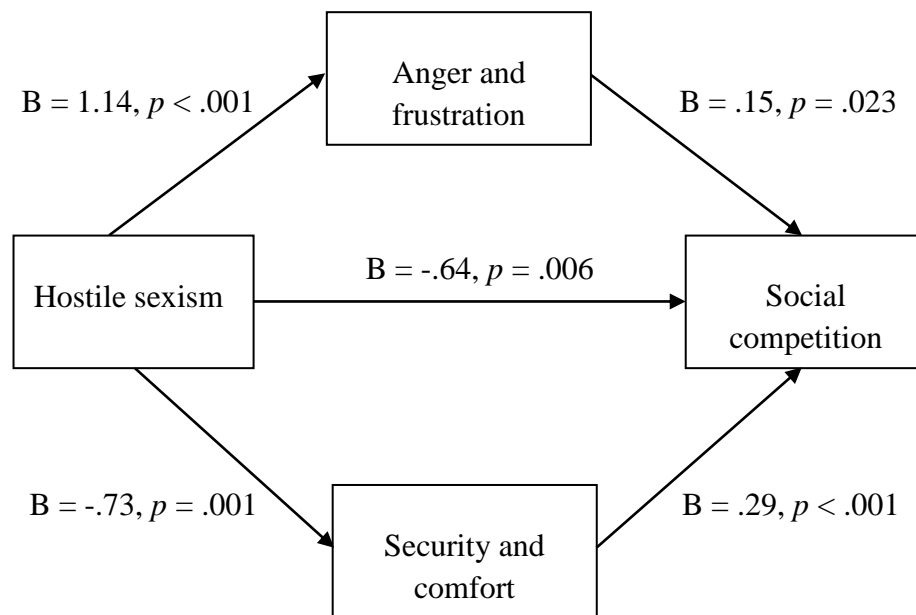


Figure 4. Multiple mediator model of the indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-frustration and security-comfort (Experiment 2, $N = 235$; 5000 resamples).

The significance of the two indirect paths was assessed using 95% bias-corrected confidence intervals with 5000 bootstrap resamples. The positive indirect

⁵ Neutral views compared to benevolent sexism (D2) did not reliably differ in terms of predicting social competition and emotions of security and comfort: $B = -.10, SE = .23, p = .674$ and $B = -.04, SE = .22, p = .852$, respectively. Nevertheless, neutral views compared to benevolent sexism (D2) led to the experience of weaker emotions of anger and frustration, $B = -1.18, SE = .24, p < .001$.

effect of hostile sexism on readiness to engage in social competition through anger-frustration was significant, $B = .17$, $SE = .08$, 95% CI = [.04, .35]. Moreover, there was a significant negative indirect effect through security-comfort, $B = -.21$, $SE = .09$, 95% CI = [-.43, -.08]. This pattern of results is consistent with our hypotheses that hostile sexism would positively affect social competition through increased feelings of anger and frustration, but would have a negative effect on social competition through decreased feelings of security and comfort.

Discussion

We found significant support for a positive indirect path, whereby hostile sexism increases emotions of anger and frustration, and thereby enhances readiness to engage in social competition. Second, exposure to hostile sexism evoked lower levels of security and comfort than did exposure to benevolent sexism. In turn, feeling less secure and comfortable was associated with lower readiness to engage in social competition. Thus, we found evidence supporting the existence of a negative indirect path, whereby hostile sexism decreases emotions of security and comfort, and thereby reduces readiness to engage in social competition.

To summarize, the total effect of sexism type on social competition intentions was negative, indicating that exposure to hostile sexist beliefs demotivates women's readiness to engage in social competition. As described above, a plausible explanation of the underlying psychological process is suggested by the significant negative indirect effect of hostile sexism on social competition through emotions of security and comfort. Nevertheless, hostile sexism can also motivate women's readiness to socially compete. The underlying psychological process here is explained by the positive indirect effect through emotions of anger and frustration. These two indirect effects are about equal in strength but are in opposite directions. This could account

for the fact that when emotions are taken into account the magnitude of the relationship between sexism type and social competition does not substantially change.

Finally, it should be noted that the bivariate correlation between the emotions of anger and frustration and social competition intentions was non-significant (see Table 2). However, the corresponding path (from anger and frustration to social competition intentions) in the multiple mediator model was significant (see Figure 4). This discrepancy is attributable to the fact that in multiple mediator models the indirect effect for each individual mediator is calculated as the product of the unstandardized regression coefficient for the path from the predictor to the mediator and the unstandardized regression coefficient for the path from the mediator to the outcome variable while controlling for the other mediator(s) in the model. In our model the significant positive indirect effect from hostile sexism to social competition intentions through the emotions of anger and frustration emerged while controlling for the effect of the emotions of security and comfort; the bivariate correlation between social competition intentions and the emotions of anger and frustration does not control for the emotions of security and comfort.

General Discussion

The aim of the present research was to determine the ways in which exposure to hostile sexism influences women's competitive collective action intentions. In Experiment 1 we examined the proposed causal link between feelings of security and comfort and social competition intentions experimentally. In keeping with our hypothesis, participants who were experimentally led to experience lower levels of security and comfort were significantly less ready to engage in social competition. The results of Experiment 2 showed that exposure to hostile sexism increased feelings

of anger and frustration and thereby enhanced women's readiness to engage in social competition with men, but decreased feelings of security and comfort and thereby decreased social competition intentions. The net impact of these two mechanisms was lower readiness to compete socially with men after exposure to hostile sexism.

The positive indirect effect of hostile sexism on readiness to engage in social competition through anger is consistent with evidence that hostile expressions of sexism increase (support for) collective action through group-based anger (Becker & Wright, 2011, Study 2; Ellemers & Barreto, 2009), and extends previous research by showing that this effect generalizes to a measure of collective action that focuses on social competition, rather than parity. Perhaps unsurprisingly, anger generated by hostile sexism appears to fuel a willingness to strive not only to achieve parity with men, but also to compete with men and outperform them.

More importantly, we found evidence that exposure to hostile sexism also reduces feelings of security and comfort. This finding is consistent with evidence that the experience of sexism decreases women's comfort (Swim et al., 2001), and extends prior research by showing that emotions of security and comfort (i.e., a sense of collective self-confidence) are important determinants of socially competitive collective action. Group members need to feel secure and comfortable about their ingroup's ability to act collectively and change the current intergroup situation (Experiment 1) and about their ingroup in general (Experiment 2) in order to (be willing to) compete with a higher status outgroup.

The negative direct effect of hostile sexism on social competition might be related to research (e.g., Glick, Diebold, Bailey-Werner, & Zhu, 1997) showing that hostile sexism is usually directed at non-traditional female subtypes such as feminists and career women. Women who engage in agentic behaviours (e.g., choosing to

pursue a career in a male-dominated domain) are viewed as violating the stereotypic prescriptions of feminine niceness and are disliked (Rudman, 1998; Rudman & Glick, 1999). A display of agency by women can increase their perceived competence but does so at the expense of their perceived social likability (the backlash effect; Rudman, 1998). In turn, perceptions of insufficient niceness can result in hiring discrimination against an agentic female candidate for a managerial role requiring interpersonal skills (Rudman & Glick, 1999, 2001). This 'social cost' may often discourage women from engaging in assertive, competitive behaviours. In this context, any factor that undermines women's feelings of security and comfort is also important. The present research finds that when exposure to hostile sexism decreases feelings of security and comfort, then women's assertive, competitive inclinations may be undermined. It may be the case that this negative impact is exacerbated by the presence of social costs, against which a reservoir of emotional security and comfort would be a useful buffer. However, this was not tested in the present research. The interaction between these social and emotional impacts is therefore an interesting topic for future research.

The present research shows that overtly hostile expressions of sexism have the net effect of decreasing women's readiness to engage in social competition with men through their negative effect on emotions relating to collective self-confidence. Hostile sexism appears to deplete the emotional reserves needed to engage in social competition. Although these findings could be seen as implying that benevolent sexism makes women feel more secure and ready to engage in social competition by comparison to hostile sexism, such a conclusion is not warranted. The benevolent sexism and neutral views conditions did not differ significantly from each other, so there is no basis for thinking that exposure to benevolent sexism would enhance

collective self-confidence or encourage social competition. Also, although benevolent sexism made women less angry than hostile sexism, those exposed to benevolent sexism were angrier than those exposed to neutral beliefs. These findings are consistent with prior research. Killianski and Rudman (1998) showed that women evaluated benevolent sexists more favourably than hostile sexists but less favourably than non-sexists, and Dardenne, Dumont, and Bollier (2007) found that although benevolent sexism was less easily identified as a form of prejudice than hostile sexism, it was nevertheless experienced as negative and unpleasant.

Previous research has focused on the insidious dangers of benevolent sexism. Due to its subtle nature, benevolent sexism is less likely to be challenged by women (Becker & Wright, 2011). The current research shows that hostile sexism also has negative consequences beyond the obvious effect of causing offense. Our results show that despite the fact that hostile sexism is more likely to be identified as a form of prejudice (Barreto & Ellemers, 2005b), it can undermine women's readiness to engage in social competition with men by decreasing emotions relating to collective self-confidence.

Dardenne et al. (2007) demonstrated that exposure to benevolent (more than hostile) sexism led women to experience mental intrusions (e.g., increased self-doubt) and thereby impaired their cognitive performance. This research was conducted in the context of job interviews, and conveyed hostile, benevolent, or non-sexist beliefs through the job recruiter's comments. In the current work we showed that when sexist beliefs were conveyed through a newspaper article reporting the results of a survey, hostile (compared to benevolent) sexism had more detrimental effects, in that it decreased feelings of security and comfort and as a result decreased women's readiness to engage in social competition. Together, these results suggest that when

exposed to hostile beliefs expressed by one person (the recruiter), who is also a man, it is easier to attribute those beliefs to that individual's sexism and as a result feel angry (especially in view of the fact that sexism is recognized more easily when is expressed by a male than a female source; e.g., Barreto & Ellemers, 2005a; Inman & Baron, 1996). However, when hostile beliefs are shared by a group of people (like the survey participants in our research), they also reduce women's feelings of security and comfort.

In the present research we showed that exposure to hostile sexism can both enhance and undermine competitive collective action intentions by influencing different mediating psychological processes. Hostile sexism has a positive indirect effect on social competition through emotions relating to anger, and a negative indirect effect through emotions relating to collective self-confidence. The relative influence of these divergent effects on social competition through different emotional pathways may depend on women's level of identification with different female subtypes. The present research did not address this possibility, but future research could measure identification with different female subtypes (e.g., non-traditional subtypes: career women or feminists), with a view to examining whether these different identifications moderate the indirect effects of hostile sexism on social competition. For example, because hostile sexism is usually directed at non-traditional female subtypes such as feminists (e.g., Glick et al., 1997), it seems reasonable to predict that exposure to hostile sexism would lead high identifiers with non-traditional female subtypes to experience more anger, and thereby to increased intentions to engage in social competition with men. By contrast, because hostile sexism is not usually directed at women who conform to traditional subtypes, high identifiers with traditional female subtypes who are exposed to hostile sexism might be likely to

experience lower levels of security and comfort, and as a result be less motivated to engage in social competition.

Conclusion

In summary, the present research revealed important differences in the ways that hostile, compared to benevolent, sexism influences women's intentions to compete with men. When exposed to hostile views women's feelings of security and comfort are lowered, which in turn reduces desire to compete socially with men, by comparison with when they are exposed to benevolent sexism. Although both types of sexism cast doubt on women's competence, exposure to hostile sexist views appears to undermine women's collective self-confidence more profoundly. The expression of such views therefore has the potential to damage collective striving among women.

Chapter 3: Does Hostile Sexism Increase or Decrease Social Competition Intentions? The Mediating Role of Emotion and the Moderating Role of Identification⁶

Previous research has shown that hostile sexism is more likely than benevolent sexism to be recognized as a form of prejudice and discrimination, and to evoke anger (Barreto & Ellemers, 2005a, 2005b). Blatant expressions of sexism are more likely to motivate collective action (Ellemers & Barreto, 2009). Such findings point to the insidious dangers of benevolent sexism. Due to its superficially benign and subtle nature, it is less likely to be challenged by women. However, there is also evidence that hostile sexism, despite being more blatant and explicitly negative, can also go unchallenged. Lemonaki, Manstead, and Maio (2015a; see Chapter 2), found that hostile sexism can both motivate and demotivate social competition intentions, through different mediating processes. Exposure to hostile sexism can have a positive indirect effect on social competition intentions through increased feelings of anger and frustration, and a negative indirect effect through decreased feelings of security and comfort.

What are the factors that are likely to determine whether women respond to hostile sexist beliefs with increased anger and readiness to compete, or with decreased collective self-confidence and reluctance to engage in social competition? Research informed by the social identity tradition has demonstrated the important role of ingroup identification in eliciting group-based emotions (e.g., anger; Van Zomeren, Spears, Fischer, & Leach, 2004; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003), and motivating participation in collective action on behalf of the ingroup (e.g., Simon et

⁶This chapter is based on Lemonaki, E., Manstead, A. S. R., & Maio, G. R. (2015b). *Does Hostile Sexism Increase or Decrease Social Competition Intentions? The Mediating Role of Emotion and the Moderating Role of Identification*. Unpublished Manuscript, Cardiff University.

al., 1998; Veenstra & Haslam, 2000). In the context of gender relations, prior studies (e.g., Breinlinger & Kelly, 1994; Kelly & Breinlinger, 1995; Nelson et al., 2008; Zucker, 2004) suggest that identification with specific female gender identity subtypes is an important correlate of women's readiness to engage in collective action. For instance, it has been shown that self-identified feminists, by comparison with non-feminists, are more likely to participate in collective action on behalf of women.

In line with the above, we argue that level of identification with traditional women and with feminists is likely to moderate how women respond to hostile sexism. We hypothesize that among women who identify highly with traditional women, exposure to hostile sexism should decrease emotions relating to collective self-confidence and thereby attenuate social competition intentions. By contrast, among those who identify highly with feminists, being exposed to hostile sexism should increase anger, and thereby motivate social competition intentions.

The Role of Emotions in Motivating (Competitive) Collective Action Intentions

Research on the effects of perceived sexism on collective action has explored the role of emotions in facilitating group members' willingness to act collectively. Here emotions are treated as processes that could account for the relation between perceptions of an intergroup situation (i.e., perceived sexism) and collective action intentions. As Ellemers and Barreto (2009) have noted, perceived discrimination gives rise to the emotion of anger, which in turn could be considered an important motivation for collective action. Consistent with this, Becker and Wright (2011, Study 2) found that women's exposure to hostile sexist views increased anger and, as a result, increased women's participation in collective action. At the same time, however, perceived sexism and discrimination can also result in a decrease in feelings of comfort (Swim, Hyers, Cohen, & Ferguson, 2001) or feelings of collective self-

worth (e.g., Branscombe, Schmitt, & Harvey, 1999; Fischer & Bolton Holz, 2007; Leonardelli & Tormala, 2003).

In keeping with both sets of findings, Lemonaki et al. (2015a) found that exposure to hostile sexism elicited higher levels of anger-frustration, and those women who experienced more anger-frustration exhibited greater readiness to engage in social competition with men. In addition, we found that exposure to hostile sexism elicited lower levels of security-comfort, and those women who experienced lower security-comfort exhibited less readiness to engage in social competition with men. This pattern raises an important question: What determines how women respond to hostile sexism, both in terms of the emotions that are elicited and their action inclinations as a result of the emotions? Level of identification may be a key factor in determining women's emotional responses to hostile sexism.

Identification with Female Subtypes

Prior research (e.g., Glick, Diebold, Bailey-Werner, & Zhu, 1997, Study 1; Noseworthy & Lott 1984; Six & Eckes 1991) has identified two female subtypes, traditional and non-traditional, which reflect women's acceptance or rejection of traditional gender roles and socio-structural power relationships (Glick & Fiske, 1996). Traditional female subtypes (e.g., housewives/homemakers, mothers) are seen as consistent with traditional gender roles, whereas non-traditional subtypes (e.g., career women/businesswomen, feminists) are viewed as violating these roles. Moreover, there is consistent evidence (e.g., Glick et al., 1997; Haddock & Zanna, 1994; Sibley & Wilson, 2004) that traditional female subtypes tend to be ascribed positive characteristics and to elicit favourable evaluations and benevolent, paternalistic reactions (i.e., benevolent sexism). By contrast, non-traditional subtypes tend to evoke negative evaluations and hostile, aggressive responses (i.e., hostile

sexism).

This classification into ‘traditional’ and ‘non-traditional’ women can also form the basis for self-identification among women. According to Cameron and Lalonde (2001), gender identity can be derived not only from membership of a gender category, but also from attitudes and beliefs regarding traditional gender-related roles and the nature of structural relations between men and women. Women self-identify as ‘traditional’ or ‘non-traditional’ or ‘feminists’ based on their attitudes to gender-consistent roles and the nature of gender status relations.

In line with this reasoning, the Gender Identity Model (GIM; Becker & Wagner, 2009) differentiates between strength of identification and content of identity (i.e., preference for a traditional vs. progressive gender role). Four gender identity types can be derived: traditional identifiers, traditional non-identifiers, progressive identifiers, and progressive non-identifiers. Highly identified women who prefer a traditional gender role fall within the “traditional identifiers” type, whereas high identifiers who prefer a progressive gender role fall within the type of “progressive identifiers.” Becker and Wagner (2009) argue that while (strength of) identification motivates women to think and act on behalf of the ingroup, the content of identification directs their thinking and behaviour. Consistent with their argument, these authors found that progressive identifiers showed a greater rejection of sexist beliefs and a greater participation in collective action compared to traditional identifiers.

In keeping with the above we argue that the way in which women are affected by and the extent to which they reject hostile sexist beliefs is likely to depend on the attitudes and beliefs they hold regarding gender relations (i.e., ‘traditional’ or more conservative vs. ‘non-traditional’ or more egalitarian attitudes and beliefs), and their

subsequent level of self-identification with a particular female subgroup (e.g., traditional women). Exposure to hostile sexism might not be perceived as equally threatening to highly identified traditional women and highly identified feminists, and as a result might lead to divergent reactions.

As previously noted, sexist hostility is not usually directed at women who conform to traditional subtypes. Therefore exposure to hostile sexism is likely to be perceived as a threat to the collective self-confidence of highly identified traditional women, and consequently might result in a decrease in confidence-related emotions. We predict that exposure to hostile sexism would lead highly identified traditional women to experience lower levels of confidence-related emotions, and as a result be less motivated to engage in social competition.

The pattern for highly identified feminists should be different. For women who identify with feminists, being confronted with hostile, antagonistic beliefs is nothing new; it is something that they would strongly reject. Self-identified feminists are more likely to act against gender discrimination by engaging in collective action than non-feminists (e.g., Nelson et al., 2008; Zucker, 2004). As a result, exposure to hostile sexism might not undermine their collective self-confidence. On the contrary, after being exposed to hostile sexism highly identified feminists are likely to experience anger-related emotions. We therefore predict that exposure to hostile sexism would lead highly identified feminists to experience higher levels of anger-related emotions, and thereby report increased intentions to engage in social competition.

Experiment 3

To test this reasoning, we examined (1) the role of anger-related and confidence-related emotions in accounting for the relation between (a) exposure to

hostile (vs. benevolent) sexist beliefs about women and (b) women's readiness to compete socially with men, and (2) the role of identification with female subtypes in moderating these relationships. We addressed these issues using an experiment that manipulated exposure to hostile and benevolent sexism following procedures used by Lemonaki et al. (2015a). We also measured readiness to engage in social competition, and the proposed mediators (i.e., anger-related and confidence-related emotions).

Method

Participants and experimental design. Participants ($N = 123$) were undergraduate female students at Cardiff University who received course credit for their participation. Data from three participants were omitted from the main analyses because they failed to pass an attention check (details of which are given below). Another participant was excluded from the final sample for not completing the 'social competition' measure. The 119 who comprised the final sample were women aged between 18 and 39 years ($M = 18.60$). The independent variable was sexism type (Hostile sexism vs. Benevolent sexism), the proposed mediators were anger-related and confidence-related emotions, and the dependent variable was participants' readiness to engage in social competition. Participants were randomly assigned to one of the two experimental conditions.

Procedure. Two weeks prior to the experiment, all participants had taken part in a mass testing session in which (amongst other measures) they completed measures of identification with subtypes of women (see below). At the end of this session, participants were fully debriefed.

Two weeks later, participants were invited to participate in the experiment. They were told that the purpose of the study was to examine their thoughts and feelings on some social issues of general interest. They first read a fictitious

newspaper article (see Appendix 2) that ostensibly summarized some survey research results. In the hostile sexism condition the text included a number of statements describing hostile sexist views about women (based on items from the Ambivalent Sexism Inventory; Glick & Fiske, 1996), such as "...people tend to believe that women are too easily offended and they overreact to innocent acts and cute remarks." In the benevolent sexism condition the same passage included a number of statements describing benevolent sexist views about women (again based on items from the Ambivalent Sexism Inventory), such as "...people tend to believe that women are superior to men in terms of good taste and have a more refined sense of culture."

Measures

Identification. The measure of identification with subtypes of women included six items adapted from Szymanski (2004). Participants were asked to indicate the extent of their agreement with each of the following items: "I consider myself a ... non-traditional woman [traditional woman] [feminist]," and "People who know me would regard me as a ... non-traditional woman [traditional woman] [feminist]." These items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*strongly*). A principal axis factor analysis with oblimin rotation resulted in a solution in which two factors had eigenvalues greater than 1, accounting for the 80.37% of the total variance. The four items assessing identification with non-traditional or traditional women loaded on the first factor: The two identification with traditional women items had loadings of 0.87 and 0.91, and the two identification with non-traditional women items had loadings of -0.92 and -0.91. The two items assessing identification with feminists loaded on the second factor, with loadings of 0.87 and 0.90. On this basis we constructed two identification scales, one reflecting identification with traditional women (comprising four items, with the two items

measuring identification with non-traditional women reverse-coded, $\alpha = .94$), the other reflecting identification with feminists ($r = .77, p < .001$). These scales were uncorrelated, $r = .003, p = .977$, and were therefore treated as separate constructs in the main analyses.

Emotions. We measured participants' emotions using the same four emotion terms as those used by Lemonaki et al. (2015a, Experiment 2) but added one more emotion term per category (*resentful* for the negative emotions, and *confident* for the positive emotions). Participants were asked to rate the extent to which they, *as women*, felt each of six emotions (three negative: *angry*, *frustrated*, and *resentful*; three positive: *secure*, *comfortable* and *confident*) after reading the article.⁷ Responses were given on a 7-point rating scale ranging from 1 (*not at all*) to 7 (*extremely*). We computed an 'anger-related' emotions scale and a 'confidence-related' emotions scale by averaging responses on the three negative ($\alpha = .86$) and three positive ($\alpha = .80$) emotion items, respectively. The two emotion scales were significantly negatively correlated ($r = -.57, p < .001$).

Social competition. We measured participants' social competition intentions using the same three items as those used by Lemonaki et al. (2015a). Participants were asked to indicate their agreement with each of the following items: "We women

⁷ Participants were also asked to rate the extent to which they felt each of these emotions "toward the survey participants." The purpose was to assess participants' reactions to the source of the hostile or benevolent beliefs and to examine the extent to which participants' emotions after reading the article correlated with their emotional reactions towards the source of the beliefs. There was a significant positive correlation for both anger-related ($r = .76, p < .001$) and confidence-related emotions ($r = .76, p < .001$). In addition, although our entire research project was focused on confidence-related *emotions*, we were curious in this study about the connections with perceptions of group efficacy. For this reason we assessed participants' group efficacy perceptions using five items, e.g., "I think that we women together are able to gain a social standing that is equal to or higher than that of men" and "I think that we women together simply are not able to achieve equal salaries for women and men" (reverse-coded), $\alpha = .83$. There was a marginally significant correlation between confidence-related emotions and group efficacy perceptions, $r = .18, p = .062$, suggesting that confidence-related emotions and group efficacy perceptions are related but distinct constructs.

can prove that we are more efficient and suitable for highly demanding positions than men,” “We women will make it clear to men that we are more competent than they are,” and “We women will soon show that we are better fitted to holding power compared to men” ($\alpha = .88$). These items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*strongly*).

Attention check. Because the success of our manipulation hinges on complete processing of the brief message containing the hostile or benevolent sexism, we designed an attention check to detect whether participants encoded the information containing the manipulation. At the end of the study participants were presented with eight statements: Six were derived from the articles that constituted the experimental manipulation (3 statements from the “hostile sexism” article and 3 from the “benevolent sexism” article); there were also two filler statements. Participants were instructed to indicate which of the eight statements was in the article they had read. In this way we examined participants’ ability to identify the three correct statements (and not to select the five incorrect ones), and used this as an indication of how attentive they had been when reading the article. Both selection of a correct statement and non-selection of an incorrect statement were given a score of 1. Both non-selection of a correct statement (false negatives) and selection of an incorrect statement (false positives) were scored zero. We summed the scores of the eight statements to create an attention score ranging from 0 to 8. Given that a participant could obtain a score of 5 simply by not selecting any incorrect statements, we used an attention score of greater than 5 as a criterion for passing the attention check. As mentioned above, three participants (one in the hostile sexism condition and two in the benevolent sexism condition) were excluded from the main analyses on this basis.

Manipulation check. After the attention check participants were asked to indicate the extent of their agreement with the following two items: “The survey described some frankly positive beliefs about women,” and “The survey described some frankly negative beliefs about women” (reverse-coded). Responses to these items were rated on a 7-point scale (1 = not at all, 7 = strongly). We computed a manipulation check scale by averaging responses to these two items ($r = .76, p < .001$).

Results

Manipulation check. The manipulation check showed that the manipulation of sexism type was successful. An independent samples *t*-test comparing the two experimental conditions revealed a significant effect, $t(98.31) = 11.18, p < .001$. Participants in the hostile sexism condition rated the survey as significantly less positive about women ($M = 2.07, SD = 0.79$) compared to participants in the benevolent sexism condition ($M = 4.21, SD = 1.24$).

Sexism type and emotional reactions. Two independent samples *t*-tests were conducted comparing the hostile and benevolent sexism conditions on the anger-related and confidence-related emotions measures. Results revealed a significant effect of sexism type on anger-related emotions, $t(114.40) = -3.29, p = .001$,⁸ indicating that exposure to the hostile sexism article led to significantly stronger feelings of anger, frustration and resentment ($M = 4.11, SD = 1.32$) than did exposure to the benevolent sexism article ($M = 3.24, SD = 1.56$).

⁸ Levene’s test for equality of variance was significant ($F = 4.39, p = .038$), indicating unequal variances. As a result, we report adjusted (from 117 to 114.40) degrees of freedom. The same adjustment has been made throughout the thesis whenever the results of Levene’s test indicated significant inequality of variances.

There was also a significant effect of sexism type on confidence-related emotions, $t(117) = 5.07, p < .001$, indicating that exposure to the hostile sexism article led to significantly weaker feelings of security, comfort, and confidence ($M = 2.99, SD = 0.91$) than did exposure to the benevolent sexism article ($M = 3.93, SD = 1.10$).

Effects of hostile sexism on social competition through emotions. To determine whether there were indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-related and confidence-related emotions, we used the PROCESS procedure for SPSS, and tested a model (Hayes, 2013, model 4) that provides a method of estimating direct and indirect effects with multiple mediators (see also Preacher & Hayes, 2008). Readiness to engage in social competition was entered as the outcome variable, sexism-type was entered as the independent variable, and anger-related and confidence-related emotions were the proposed mediating variables. Means, standard deviations and bivariate correlations between all measures are reported in Table 3.

Table 3

Intercorrelations, Means and Standard Deviations for all Measures (Experiment 3)

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Social competition	3.85	1.34	-				
2. Anger-related emotions	3.67	1.50	.13	-			
3. Confidence-related emotions	3.47	1.11	.08	-.57***	-		
4. ID with traditional women	3.70	1.39	-.07	-.11	.07	-	
5. ID with feminists	3.18	1.61	-.06	.24*	-.08	.003	-

*Note: ID = identification; *** $p < .001$, * $p < .05$.*

The total effect of sexism type on participants' readiness to engage in social competition was non-significant, $B = -.14$, $SE = .25$, $p = .564$. Participants' anger-related emotions ($B = .24$, $SE = .10$, $p = .019$) and confidence-related emotions ($B = .25$, $SE = .14$, $p = .078$) were significant and marginally significant predictors of social competition, respectively (see Figure 5).

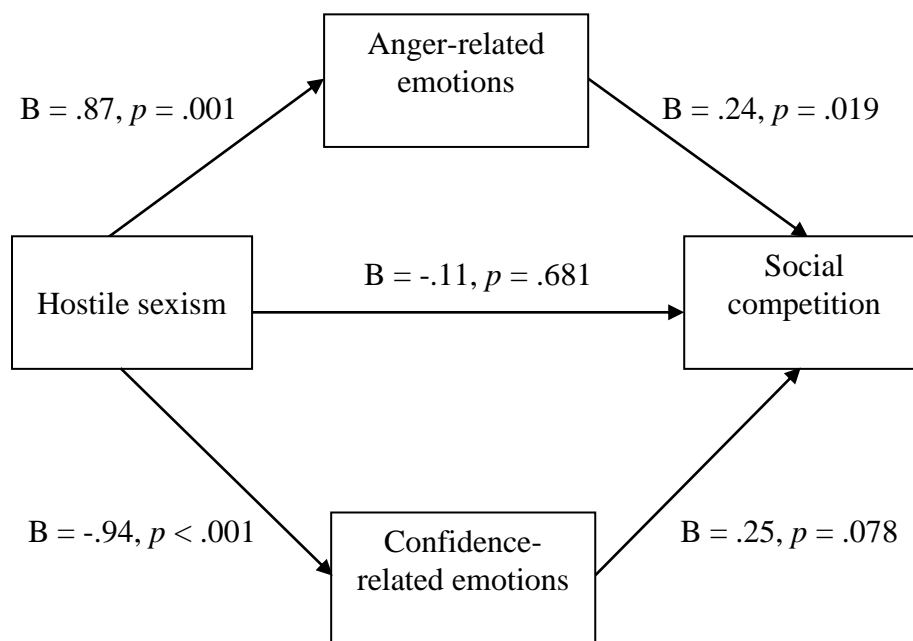


Figure 5. Multiple mediator model of the indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-related and confidence-related emotions (Experiment 3, $N = 119$; 5000 resamples).

Although the total effect of hostile sexism on social competition intentions was not significant, the presence of a significant total effect is not considered to be a requirement for examining indirect effects, provided there are reasonable grounds for predicting their existence (e.g., Hayes, 2009; Rucker, Preacher, Tormala, & Petty, 2011). In past research (Lemonaki et al., 2015a) we have found that exposure to hostile sexism indirectly increased and decreased social competition intentions

through anger-related and confidence-related emotions, respectively. We therefore assessed the significance of the indirect paths using 95% bias-corrected confidence intervals with 5000 bootstrap resamples. In line with our previous findings, the positive indirect effect of hostile sexism on social competition through anger-related emotions, $B = .21$, $SE = .11$, 95% CI = [.040, .478], was significant, as was the negative indirect effect through confidence-related emotions, $B = -.24$, $SE = .15$, 95% CI = [-.584, -.002]. Thus, these two indirect effects reveal counteracting influences on social competition.

Conditional indirect effects of hostile sexism on social competition

through emotions. To evaluate our predictions that the negative indirect effect of exposure to hostile sexism on readiness to engage in social competition through confidence-related emotions would particularly apply to women who identify highly with traditional women, and that the positive indirect effect through anger-related emotions would particularly apply to women who identify highly with feminists, we used a conditional process model (model 58, Hayes, 2013; see also Preacher, Rucker, & Hayes, 2007). This model provides a method of testing the significance of conditional indirect effects at different values of the moderator, while testing for moderation of more than one path in the causal sequence. In this way we tested whether (a) identification moderated the effect of hostile sexism on emotions and (b) identification moderated the effect of emotions on social competition intentions.

Identification with traditional women. The interaction effect between sexism type and identification with traditional women on anger-related emotions was not significant, $B = .18$, $p = .354$, indicating that identification with traditional women did not moderate the effect of sexism type on anger-related emotions. However, there was a significant interaction effect between anger-related emotions and identification with

traditional women on social competition intentions, $B = .24$, $p < .001$. To understand the nature of this interaction we conducted simple slopes analysis following recommendations by Aiken and West (1991). As shown in Figure 6, high levels of anger-related emotions positively predicted social competition intentions for those participants who identified more (+1SD) with traditional women, $B = .59$, $t(114) = 4.35$, $p < .001$, but not for those who identified less (-1SD) with traditional women, $B = -.07$, $t(114) = -0.56$, $p = .580$.

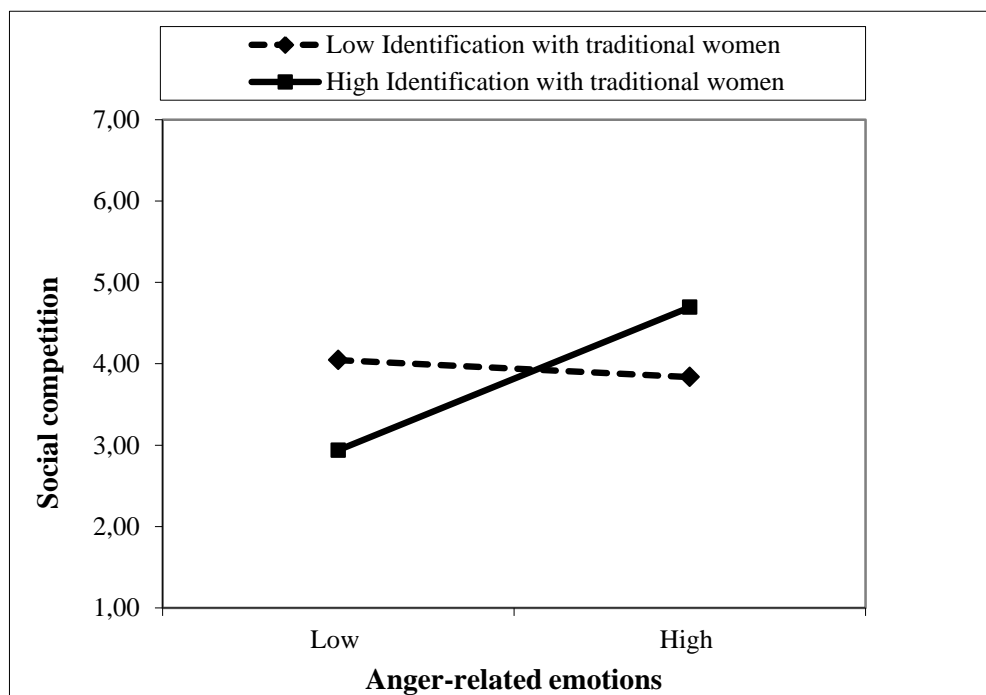


Figure 6. The interaction effect between anger-related emotions and identification with traditional women on social competition intentions (Experiment 3). High and low equals +1SD and -1SD, respectively.

The mediated path (M to Y) from anger-related emotions (M) to social competition intentions (Y) was moderated by identification with traditional women. Increased anger was more likely to lead to increased readiness to engage in social

competition among those who identified highly (+1SD) with traditional women, $B = .64$, $SE = .27$, 95% CI [.20, 1.29], but not among those who identified less (-1SD), $B = -.04$, $SE = .13$, 95% CI [-.43, .11].

Moreover, there was a significant interaction effect between sexism type and identification with traditional women on confidence-related emotions, $B = -.28$, $p = .038$. As shown in Figure 7a, simple slopes analysis revealed that exposure to hostile (vs. benevolent) sexism led participants who identified more strongly (+1SD) with traditional women to experience lower confidence-related emotions, $B = -1.32$, $t(116) = -5.07$, $p < .001$, by comparison with their counterparts who identified less strongly (-1SD) with traditional women, $B = -.55$, $t(116) = -2.08$, $p = .040$.

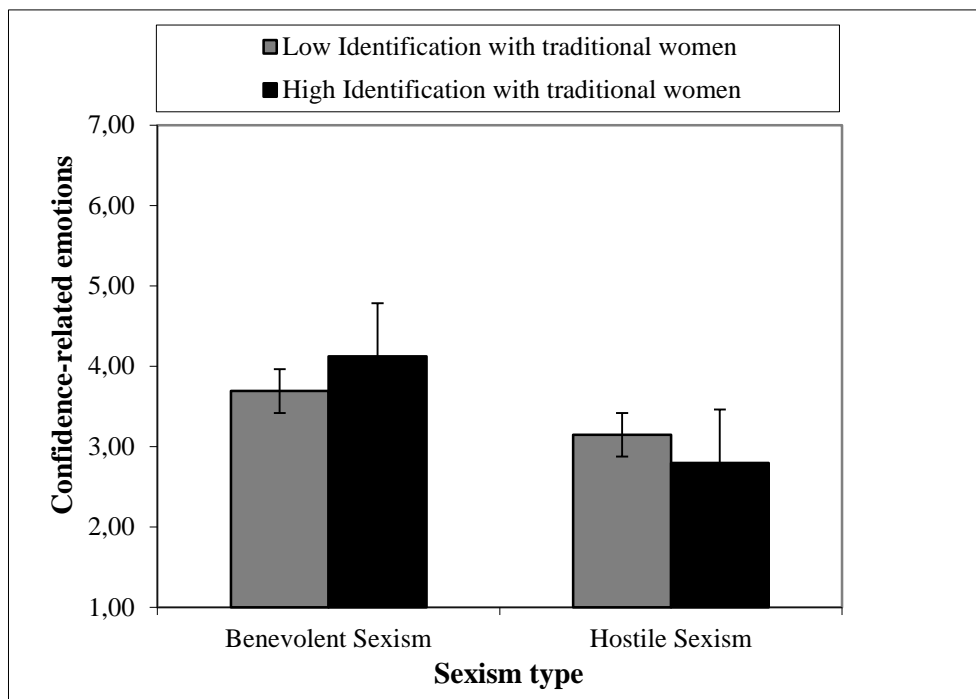


Figure 7a. The interaction effect between sexism type and identification with traditional women on confidence-related emotions (Experiment 3). High and low equals +1SD and -1SD, respectively. Standard errors are represented in the figure by the error bars attached to each column.

There was also a significant interaction effect between confidence-related emotions and identification with traditional women on social competition intentions, $B = .21, p = .014$. Simple slopes analysis (see Figure 7b) revealed that low levels of confidence-related emotions negatively predicted social competition intentions for those participants who identified more (+1SD) with traditional women, $B = .58, t(114) = 3.46, p = .001$, but not for those who identified less (-1SD) with traditional women, $B = -.01, t(114) = -0.04, p = .969$.

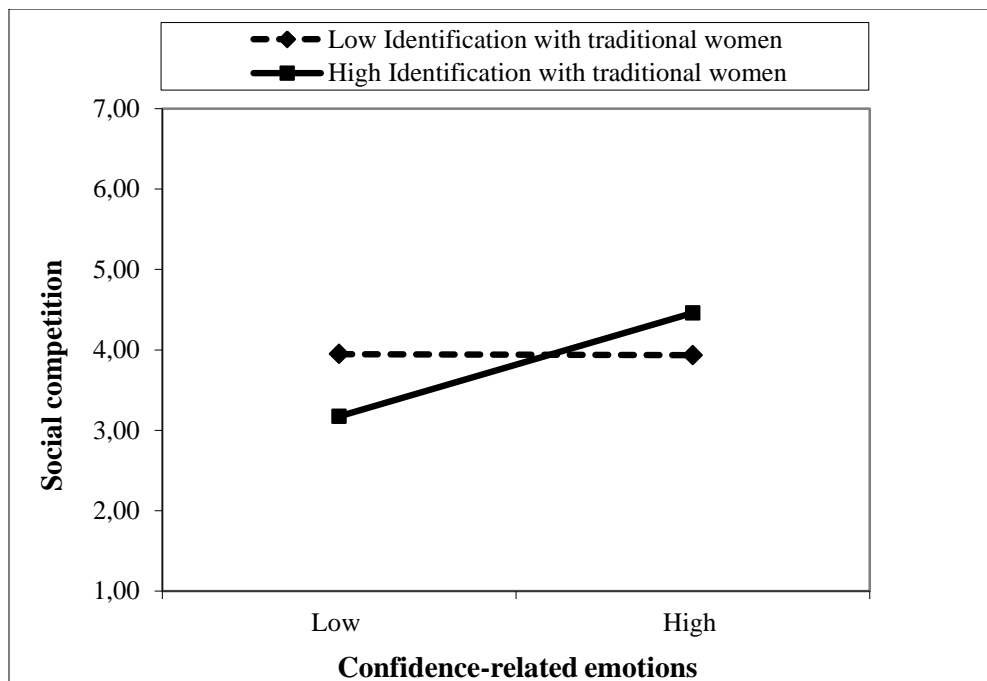


Figure 7b. The interaction effect between confidence-related emotions and identification with traditional women on social competition intentions (Experiment 3). High and low equals +1SD and -1SD, respectively.

Lower levels of confidence-related emotions emerged as a significant mediator of the effect of hostile sexism on readiness to engage in social competition for high identifiers (+1SD) with traditional women, $B = -.74, SE = .24, 95\% \text{ CI } [-1.29, -.33]$,

but not for low identifiers ($-1SD$), $B = .01$, $SE = .13$, 95% CI $[-.26, .32]$. This pattern of results is consistent with our prediction that participants who identified more strongly with traditional women (but not those who identified less strongly) and who were exposed to hostile (vs. benevolent) sexism would be more likely to experience lower levels of confidence-related emotions, and as a result be less motivated to engage in social competition.

Identification with feminists. The interaction effects between sexism type and identification with feminists on anger-related emotions, $B = -.17$, $p = .286$, and between anger-related emotions and identification with feminists on social competition, $B = -.03$, $p = .667$, were not significant, indicating that the positive indirect effect of hostile sexism on readiness to engage in social competition through anger-related emotions was not moderated by participants' levels of identification with feminists. This is inconsistent with our prediction that high identifiers with feminists exposed to hostile sexism would be more likely to experience higher levels of anger-related emotions, and as a result be more motivated to engage in social competition, by comparison with low identifiers.

Consistent with expectations, the interaction effects between sexism type and identification with feminists on confidence-related emotions, $B = .06$, $p = .622$, and between confidence-related emotions and identification with feminists on social competition, $B = -.07$, $p = .457$, were not significant. Thus, the negative indirect effect of hostile sexism on readiness to engage in social competition through confidence-related emotions was not moderated by the degree to which participants identified with feminists.

Discussion

The aim of this study was to examine whether the divergent effects of hostile sexism on social competition through different emotions, found in our earlier research (Lemonaki et al., 2015a), would vary as a function of women's level of identification with different female subtypes, namely traditional women and feminists. In keeping with our previous findings, we found evidence of both a positive and a negative indirect emotional pathway linking exposure to hostile sexism to social competition intentions. Exposure to hostile sexism (as compared to benevolent sexism) increased anger-related emotions, and thereby enhanced readiness to engage in social competition. Moreover, exposure to hostile sexism (as compared to benevolent sexism) evoked lower levels of confidence-related emotions, and thereby decreased readiness to engage in social competition.

As predicted, we found that the negative indirect pathway through confidence-related emotions applied only to those women who identified highly with traditional women. When highly identified traditional women (by comparison with those who identified less with traditional women) were exposed to hostile sexist beliefs, they were more likely to experience lower levels of confidence-related emotions, and as a result were less ready to engage in social competition. The importance of identification with traditional women emerged again in the analysis of anger-related emotions. An unanticipated finding was that highly identified traditional women, to the extent that they felt angry, reported greater readiness to engage in social competition, by comparison with their counterparts who identified less with traditional women. Surprisingly, we did not find support for our prediction that the positive indirect pathway through anger-related emotions would apply to women who

identified highly with feminists. Indeed, we found that exposure to hostile sexism increased anger regardless of identification.

Our findings are broadly congruent with the social identity theory argument that perceptions of and reactions to threats to the ingroup will depend on ingroup identification. Highly identified group members are more inclined to respond to threats against their ingroup collectively (Tajfel & Turner, 1979). Moreover, group members who identify strongly with the ingroup should be more likely to react angrily to threats to the ingroup, and this greater anger should increase their willingness to take collective action on behalf of the group (e.g., Van Zomeren et al., 2004). In our study, highly identified traditional women, to the extent that they experienced increased levels of anger, and presumably because they consider themselves as positively distinct from men (Condor, 1984; cited in Becker & Wagner, 2009), were more likely to indicate their readiness to engage in social competition. However, these women also exhibited lower levels of confidence-related emotions after exposure to hostile sexism (arguably reflecting a lack of collective self-confidence), decreasing their inclination to engage in social competition. On balance, these findings suggest that for highly identified traditional women, group-based anger constitutes a necessary but not sufficient determinant of socially competitive collective action. Women who identify highly with traditional women need to feel confident about their ingroup in order to be willing to compete with the higher status outgroup. For highly identified traditional women, hostile sexism appears to deplete the emotional reserves needed to engage in social competition.

It is interesting to consider why the anger-related emotional pathway to social competition was not moderated by identification with feminists. A possible explanation is the relatively small number of highly identified feminists in our

sample. Only 36% of participants had a score equal to or greater than 4 on the 'identification with feminists' measure. Negative stereotypes associated with being a feminist might have reduced participants' willingness to present themselves as highly identified feminists (Leaper & Arias, 2011). In addition, prior research (e.g., Nelson et al., 2008) has shown that life experiences, such as exposure to feminist ideas or sexism, can promote feminist self-identification. Our participants were first year undergraduate psychology students who may have had relatively little sustained exposure to feminist ideas or sexism. It is possible that future research using an older, more diverse sample would reveal a role for identification with feminists.

An alternative explanation is that highly identified feminists respond equally to hostile and benevolent sexism (i.e., with increased anger, and thereby readiness to engage in social competition). Prior research (e.g., Nelson et al., 2008; Zucker, 2004) suggests that feminists are more likely to be sensitive to discrimination and to react against it. This implies that feminists are likely to be sensitive not only to overt, hostile forms of discrimination but also to subtler, benevolent forms. Consistent with this argument, highly identified feminists were statistically speaking just as angry in response to the benevolent sexism article ($M = 3.81$, $SD = 1.63$) as they were to the hostile sexism one ($M = 4.37$, $SD = 1.40$), $t(41) = -1.20$, $p = .238$. By contrast, those who identified less with feminists were significantly angrier ($M = 3.98$, $SD = 1.27$) in response to the hostile article than they were in response to the benevolent one ($M = 2.86$, $SD = 1.41$), $t(74) = -3.65$, $p < .001$.

Notwithstanding the need for further evidence regarding a role for identification with feminists, the current paper contributes to the literature by showing that identification with subtypes of women, and with traditional women versus feminists in particular, is important in predicting women's competitive collective

action intentions after exposure to hostile sexism. Previous research has focused on the insidious dangers of benevolent sexism, which due to its benign and subtle nature is less likely to be challenged by women (Becker & Wright, 2011). In line with our previous research (Lemonaki et al., 2015a), we found that hostile sexism also has negative consequences beyond the obvious effect of causing offense. Despite the fact that hostile sexism is more likely to be identified as a form of prejudice (Barreto & Ellemers, 2005b), it can undermine women's readiness to engage in social competition with men by decreasing emotions relating to collective self-confidence. Moreover, we showed that this negative emotional pathway is especially likely to apply to a specific subgroup of women, that is, highly identified traditional women. This finding points to the importance of focusing research attention on the specific content of gender identification, and thereby taking multiple sub-identifications within gender identity into account when examining perceptions of and reactions to gender discrimination.

Chapter 4: Hostile Sexism Undermines Collective Self-Confidence and thereby Decreases Social Competition, but not Collective Action for Parity⁹

Sexism is not uniformly expressed as hostility and antipathy. On the contrary, blatant expressions of sexism coexist with subtler and more socially acceptable forms (e.g., Jackman, 1994; Swim, Aikin, Hall, & Hunter, 1995). Glick and Fiske (1996) have characterized these two forms of sexism as hostile and benevolent sexism, respectively. Hostile sexism comprises overtly negative and competitive beliefs about women, whereas benevolent sexism consists of apparently positive and favourable beliefs. These hostile and benevolent beliefs tend to be perceived differently by women and to lead to different emotional reactions and collective action tendencies (e.g., Barreto & Ellemers, 2005a, 2005b; Becker & Wright, 2011; Killianski & Rudman, 1998). The present series of studies examined the impact of hostile (vs. benevolent) sexism on women's emotions and intentions to engage in collective action aimed at outperforming men (Experiment 4) or at achieving parity with men (Experiments 5 and 6). In addition, we examined emotions as the underlying psychological process through which women's collective action intentions can be strengthened or weakened. Finally, we identified an emotional pathway through which hostile sexism has the potential to undermine women's collective striving to outperform men (but not to achieve parity with men).

Emotional Pathways to (Competitive) Collective Action

In response to an ingroup's disadvantaged status position that is also perceived to be illegitimate, group members may choose to act collectively (e.g., relative deprivation theory, RDT: Runciman, 1966; social identity theory, SIT: Tajfel &

⁹ This chapter is based on Lemonaki, E., Manstead, A. S. R., & Maio, G. R. (2015c). *Hostile Sexism Undermines Collective Self-Confidence and thereby Decreases Social Competition, but not Collective Action for Parity*. Unpublished Manuscript, Cardiff University.

Turner, 1979). Collective action occurs when a group member is acting as a representative of the group and his or her action is directed at improving the current disadvantaged position of the entire group (Wright, Taylor, & Moghaddam, 1990). Moreover, “[G]roup members ... may try to reverse the relative positions of the in-group and the out-group on salient dimensions” (Tajfel & Turner, 1979, p. 44). In Tajfel and Turner’s terms, this is social competition.

Intergroup emotions theory (IET; Smith, 1993, 1999) emphasizes the mediating role of emotions in accounting for the relation between perceived illegitimate collective disadvantage and collective action. Specifically, IET posits that group members’ appraisals of a given intergroup situation (e.g., injustice) trigger specific emotions (e.g., group-based anger) toward outgroup members, which in turn lead to specific types of intergroup behaviour (e.g., challenging the injustice collectively by confronting the outgroup; Mackie, Devos, & Smith, 2000; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003).

In their integrated model combining social identity theory and relative deprivation theory, Mummendey, Kessler, Klink, and Mielke (1999) showed that a preference for collective strategies such as social competition in response to illegitimate intergroup relationships is mediated by feelings of anger (see also Smith & Kessler, 2004). Consistent with the above, Van Zomeren, Spears, Fischer, and Leach (2004) proposed an emotion-based pathway to collective action, whereby appraisals of injustice lead to collective action tendencies through group-based anger (see also Van Zomeren, Postmes, & Spears, 2008).

Women who experience discrimination do not necessarily challenge it (e.g., Swim & Hyers, 1999). Although perceived sexism and discrimination lead to an increase in negative emotions, such as anger, they can also result in a decrease in

positive emotions such as feelings of comfort (Swim, Hyers, Cohen, & Ferguson, 2001) or feelings of collective self-worth (e.g., Leonardelli & Tormala, 2003; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002). Indeed, prior research (Miller, Cronin, Garcia, & Branscombe, 2009) has demonstrated how competing emotional reactions in response to unfair treatment by an outgroup can adversely affect ingroup members' willingness to engage in collective action. These authors showed that although exposure to unfair treatment can increase participants' engagement in collective action through the experience of anger, this mobilizing effect of anger can be negated by the experience of other negative emotions, such as fear and anxiety, which act as significant inhibitors of collective action.

(Competitive) Collective Action as a Response to Sexism: The Role of Emotions

Prior research on responses to sexism (e.g., Becker & Wright, 2011) has tended to focus on collective action that seeks to change an unjust intergroup situation by improving women's relative status position, and thereby achieve equal status for women (e.g., participating in a protest demanding equal rights). We label this collective action for parity. Blatant expressions of sexism are likely to be perceived as a form of sexism and discrimination, are immediately annoying and irritating, and as a result women exposed to hostile sexism are more likely to challenge current gender relations by expressing support for or participating in collective action for parity (Becker & Wright, 2011, Study 2; Ellemers & Barreto, 2009).

More recently, Lemonaki, Manstead, and Maio (2015a, see also Lemonaki et al., 2015b; see Chapters 2 and 3, respectively) examined the effects of sexism on competitive collective action. We focused on attempts to change an unjust intergroup situation through women competing with men to achieve higher status than men (i.e., social competition; Tajfel & Turner, 1979). We found that exposure to hostile sexism

can both motivate and demotivate social competition intentions through influencing different mediating psychological processes. Specifically, hostile sexism had a positive indirect effect on social competition through increased anger and frustration. This finding indicates that the established positive indirect effect of hostile sexism on collective action for parity through anger (e.g., Becker & Wright, 2011) also holds true for a measure of collective action that focuses on social competition, rather than parity.

Hostile sexism also had a negative indirect effect on social competition by decreasing feelings of security and comfort. This finding is consistent with prior research showing that the experience of discrimination is not always challenged (e.g., Swim & Hyers, 1999), and that the experience of sexism leads to a decrease in women's feelings of comfort (Swim et al., 2001). Moreover, this finding points to a potential psychological mechanism underlying collective inaction after exposure to hostile beliefs. What remains unanswered is whether this negative pathway from hostile sexism to decreased collective action intentions to compete with the outgroup via reduced feelings of security and comfort would also apply if the collective action intentions were to achieve parity with the outgroup, as opposed to outperforming it.

The Present Research

We report three experiments addressing this question. Experiments 4 and 5 focus on the role of feelings of anger, frustration and resentment, on the one hand, and feelings of security, comfort and confidence, on the other, in accounting for the relation between exposure to hostile (vs. benevolent) sexism and readiness to engage in social competition or collective action for parity, respectively. Prior research suggests that there should be a) a positive indirect pathway to collective action for parity (e.g., Becker & Wright, 2011) and social competition intentions (e.g.,

Lemonaki et al., 2015a, 2015b) through increased anger, and b) a negative indirect pathway to social competition intentions through reduced emotions relating to collective self-confidence (Lemonaki et al., 2015a, 2015b). In Experiments 5 and 6 we tested whether the negative emotional pathway linking hostile sexism to social competition intentions also applies to collective action for parity intentions. Finally, in Experiment 6 we examined whether participants' intentions to engage in collective action for parity would also be reflected in a quasi-behavioural measure.

Experiment 4

In Experiment 4 we aimed to test the replicability of our previous findings (Lemonaki et al., 2015a, 2015b) after introducing one modification. We recruited participants from the community rather than from the university. In this way we wanted to rule out the possibility that our previous findings are restricted to university students.

As in previous studies, we presented women participants with a short newspaper article featuring statements expressing hostile or benevolent sexist beliefs. We measured participants' emotions and readiness to engage in social competition after reading this article.

Method

Participants and experimental design. Participants in this online experiment were recruited through a loyalty program that compensates participants by awarding them points that can be used for online shopping ($N = 208$). On the basis of an attention check (see below), 83 participants were omitted from the main analyses because they failed to pass this check; another participant was excluded due to substantial missing data; a further 2 participants were omitted following outlier analysis. These latter participants had scores on the confidence-related emotions

measure that were beyond the range defined by the whiskers in Tukey's (1977) box plot (i.e., their scores were 1.5 times the interquartile range above the 75th percentile). The 122 who comprised the final sample were women aged between 18 and 59 years ($M = 40.68$, $SD = 10.72$). The independent variable was sexism type (Hostile sexism vs. Benevolent sexism), which was manipulated by altering the content of an article read by participants. The proposed mediators were participants' emotional reactions after reading the article, and the dependent variable was participants' readiness to engage in social competition.

Procedure. Participants were told that the purpose of the study was to examine their thoughts and feelings on social issues of general interest. At the outset, they read a fictitious newspaper article (see Appendix 2) that ostensibly summarized some survey research results. In the hostile sexism condition the text included a number of statements describing hostile sexist views about women (based on items from the Ambivalent Sexism Inventory; Glick & Fiske, 1996), such as "...people tend to believe that, under the pretence of striving for equality, women try to gain special favours at the expense of men." In the benevolent sexism condition the same passage included a number of statements describing benevolent sexist views about women (again based on items from the Ambivalent Sexism Inventory), such as "...people tend to believe that women are superior to men in terms of good taste and have a more refined sense of culture."

Measures

Emotions. We measured participants' emotions using the same six emotion terms as those used by Lemonaki et al. (2015b). Participants were asked to rate the extent to which they, as women, felt each of six emotions (three anger-related: *angry*, *frustrated*, and *resentful*; and three confidence-related: *secure*, *comfortable*, and

confident) after reading the article.¹⁰ Responses were given on a 7-point rating scale ranging from 1 (*not at all*) to 7 (*extremely*). We computed an ‘anger-related’ and a ‘confidence-related’ emotions scale by averaging responses on the three anger-related ($\alpha = .93$) and three confidence-related ($\alpha = .84$) emotion items, respectively. The two emotion scales were negatively correlated ($r = -.37, p < .001$).

Social competition. We measured participants’ social competition intentions using the same three items as those used by Lemonaki et al. (2015a, 2015b). Participants were asked to indicate their agreement with each of the following items: “We women can prove that we are more efficient and suitable for highly demanding positions than men,” “We women will make it clear to men that we are more competent than they are,” and “We women will soon show that we are better fitted to holding power compared to men” ($\alpha = .93$). These items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*strongly*).

Attention check. Because of the nature of the participant sample (i.e., members of a loyalty programme who collect points for every online study they complete), we added an attention check to screen out people who did not take their participation in the study seriously and/or did not pay attention to the material with which they were presented (see also Lemonaki et al., 2015b). At the end of the study participants were presented with eight statements. Six were derived from the two articles that constituted the experimental manipulation (three from the “hostile sexism” article and three from the “benevolent sexism” article), and there were also

¹⁰ Participants were also asked to rate the extent to which they felt each of these emotions “toward the survey participants.” The purpose was to assess participants’ reactions to the source of the hostile or benevolent beliefs and to examine the extent to which participants’ emotions after reading the article correlated with their emotional reactions towards the source of the beliefs. There was a significant positive correlation for both anger-related ($r = .85, p < .001$) and confidence-related emotions ($r = .74, p < .001$).

two filler statements. Participants were instructed to indicate which of the eight statements had been in the article they previously read. In this way we examined participants' ability to identify the three correct statements (and not to select the five incorrect ones), and used this as an indication of how attentive they had been when reading the article. Both selection of a correct statement and non-selection of an incorrect statement were scored 1. Both non-selection of a correct statement (false negatives) and selection of an incorrect statement (false positives) were scored zero. We summed the scores of the eight statements to create an attention score ranging from 0 to 8 (with 8 indicating that all 3 correct statements selected and no incorrect statements selected). Given that a participant could obtain a score of 5 simply by not selecting the incorrect statements and without having identified any of the correct ones, we used an attention score of greater than 5 as a criterion for passing this attention check. Participants who did not meet this criterion were not considered to be sufficiently attentive. As noted above, we identified 83 (49 of whom were in the hostile sexism condition and 34 in benevolent sexism condition) who were screened out on this basis.¹¹

Results

Sexism type and emotional reactions. Two independent samples *t*-tests were performed, comparing the hostile and benevolent sexism conditions on the two emotion measures. The results revealed a significant effect of sexism type on anger-related emotions, $t(120) = -2.64, p = .009$, indicating that exposure to the hostile sexism article led to significantly more anger ($M = 3.99, SD = 1.66$) than did exposure to the benevolent sexism article ($M = 3.13, SD = 1.88$). There was also a significant

¹¹ We used exactly the same attention check in a subsequent lab study with student participants and only 2.5% of the participants failed to pass the attention check, compared to 40.1% of the participants in this online study.

effect of sexism type on confidence-related emotions, $t(118.43) = 2.12, p = .036$, indicating that exposure to the hostile sexism article led to significantly lower confidence ($M = 3.11, SD = 1.10$) than did exposure to the benevolent sexism article ($M = 3.61, SD = 1.52$).

Effects of hostile sexism on social competition through emotions. To determine whether there were indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-related and confidence-related emotions, we used the PROCESS procedure to test a process model (Hayes, 2013, model 4) that provides a method to estimate direct and indirect effects with multiple mediators (see also Preacher & Hayes, 2008). Readiness to engage in social competition was the outcome variable, sexism-type was the independent variable, and emotions were the proposed mediating variables. Means, standard deviations and bivariate correlations between all measures are reported in Table 4.

Table 4

Intercorrelations, Means and Standard Deviations for all Measures (Experiment 4)

	<i>M</i>	<i>SD</i>	1	2	3
1. Social competition	3.63	1.69	-		
2. Anger-related emotions	3.52	1.83	.09	-	
3. Confidence-related emotions	3.39	1.36	.30**	-.37***	-

Note: *** $p < .001$, ** $p < .01$.

Sexism type significantly predicted participants' readiness to engage in social competition, $B = -.76, SE = .30, p = .013$, indicating that hostile sexism led to less social competition than did benevolent sexism. Moreover, participants' anger-related ($B = .25, SE = .09, p = .004$) and confidence-related emotions ($B = .45, SE = .11, p <$

.001) were significant predictors of social competition. Finally, the direct effect of sexism type on social competition remained significant when the proposed mediators were taken into account, $B = -.75$, $SE = .29$, $p = .012$ (see Figure 8).

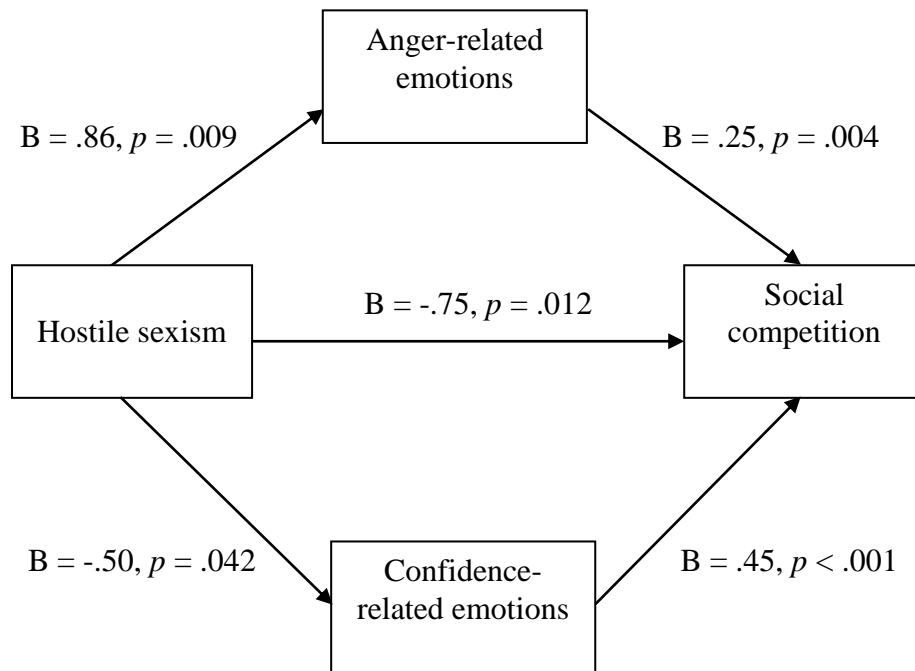


Figure 8. Multiple mediator model of the indirect effects of exposure to hostile sexism on readiness to engage in social competition through anger-related and confidence-related emotions (Experiment 4, $N = 122$; 5000 resamples).

Following Preacher and Hayes (2008), the significance of the indirect paths was assessed using 95% bias-corrected confidence intervals with 5000 bootstrap resamples. Consistent with previous findings (e.g., Lemonaki et al., 2015b), there was a significant positive indirect effect of hostile sexism on social competition through emotions relating to anger, $B = .22$, $SE = .11$, 95% CI = [.06, .50]. Moreover, there was a significant negative indirect effect through emotions relating to collective self-confidence, $B = -.23$, $SE = .13$, 95% CI = [-.57, -.03].

Discussion

Experiment 4 differed from our previous experiments (e.g., Lemonaki et al., 2015b) in one respect. We used a community sample whereas the samples we previously used comprised mainly of university students. Participants ($M_{\text{age}} = 40.68$) were members of an online loyalty program that compensates its members for taking part in research studies by awarding them points for online shopping. By contrast, in our previous experiments participants were staff and students ($M_{\text{age}} = 24.14$, Lemonaki et al., 2015a, Experiment 2) or students ($M_{\text{age}} = 18.60$, Lemonaki et al., 2015b) at Cardiff university. It could be argued that a younger sample of women does not have (on average) much life experience and therefore their confidence might be more readily affected by being exposed to hostile sexism. On the other hand, an older sample of women is likely to have greater experience of and therefore more diverse reactions to sexism. Our findings rule out this possibility.

Despite this difference, the findings of Experiment 4 replicate those of our previous experiments, showing that our results also apply to other women and are not mainly restricted to university students. Specifically, we found evidence supporting the existence of two distinct indirect emotional paths through which hostile sexism influences social competition intentions: a) a positive indirect path, whereby hostile sexism increases anger-related emotions, and thereby enhances readiness to engage in social competition; and b) a negative indirect path whereby hostile sexism decreases emotions relating to collective self-confidence, and thereby reduces readiness to engage in social competition. These two indirect effects are about equal in strength but are acting in opposite directions. This could account for the fact that, when emotions are taken into account, the magnitude of the relationship between sexism type and social competition does not substantially change.

Experiment 5

Previous studies (Becker & Wright, 2011, Study 2; Ellemers & Barreto, 2009) have demonstrated that hostile expressions of sexism increase (support for) collective action to achieve parity between ingroup and outgroup through their effect on group-based anger. In Experiment 4 we showed that this effect also generalizes to a measure of collective action that focuses on social competition, rather than parity. We also showed that exposure to hostile sexist beliefs decreases socially competitive collective action intentions through its impact on emotions relating to collective self-confidence. What is so far unclear is whether this negative indirect path also applies to collective action aimed at achieving parity. The goal of Experiment 5 was to address this question.

Method

Participants and experimental design. Participants ($N = 209$) in this experiment were recruited through the same online loyalty program as that used in Experiment 4. On the basis of the same attention check as that used in Experiment 4, data from 73 participants were omitted from the main analyses because they failed to pass this check; a further two participants were excluded from the final sample because of substantial amounts of missing data; another participant was omitted from the main analyses following outlier analysis. This latter participant's score on the confidence-related emotions measure was beyond the range defined by the whiskers in Tukey's (1977) box plot (i.e., the score was 1.5 times the interquartile range above the 75th percentile). The 133 who comprised the final sample were women aged between 18 and 59 years ($M = 40.06$, $SD = 11.19$). The independent variable and the proposed mediators were identical to those used in Experiment 4. The dependent variable was participants' readiness to engage in collective action for parity.

Procedure and measures. The procedure and many of the measures (emotions, attention check) were identical to those used in Experiment 4.

Emotions. We constructed an ‘anger-related’ and a ‘confidence-related’ emotions scale by averaging responses on the three anger-related ($\alpha = .94$) and three confidence-related ($\alpha = .83$) emotion items, respectively. The two emotion scales were negatively correlated ($r = -.39, p < .001$).¹²

Collective action for parity intentions. We measured participants’ collective action intentions using four items (Becker & Wright, 2011; Ellemers & Barreto, 2009). Participants were asked to indicate their agreement with each of the following items: “I am willing to engage in collective action in favour of equality between men and women,” “I am willing to forward an online petition to request equal representation for women and men in high-status positions,” “I am willing to participate in a rally demanding equal salaries for women and men,” and “I am willing to engage in collective action against sexism in general” ($\alpha = .89$). These items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*strongly*).

Attention check. This was assessed using the same items as those used in Experiment 4. Participants with an attention score of 5 or below were excluded from the main analyses. As noted above, we identified 73 inattentive participants (35 in the hostile sexism condition and 38 in benevolent sexism condition) who were screened out on this basis.

¹² As in Experiment 4, participants were also asked to rate the extent to which they felt each of these emotions “toward the survey participants.” The purpose was to examine the extent to which participants’ emotions after reading the article correlated with their emotional reactions towards the source of the beliefs. As before, there was a significant positive correlation for both anger-related ($r = .90, p < .001$) and confidence-related emotions ($r = .72, p < .001$).

Results

Sexism type and emotional reactions. Two independent samples *t*-tests were performed, comparing the hostile and benevolent sexism conditions on the two emotion measures. The results revealed a significant effect of sexism type on anger-related emotions, $t(131) = -2.78, p = .006$, indicating that exposure to the hostile sexism article led to significantly more emotions of anger, frustration and resentment ($M = 4.01, SD = 1.75$) than did exposure to the benevolent sexism article ($M = 3.15, SD = 1.79$). The effect of sexism type on confidence-related emotions was marginally significant, $t(131) = 1.86, p = .065$, indicating that exposure to the hostile sexism article led to weaker feelings of security, comfort and confidence ($M = 3.23, SD = 1.17$) than did exposure to the benevolent sexism article ($M = 3.65, SD = 1.39$).

Indirect effects of hostile sexism on collective action for parity through emotions. We tested whether there were indirect effects of exposure to hostile sexism on readiness to engage in collective action for parity through emotions using the same procedure as the one used in Experiment 4. Means, standard deviations and bivariate correlations between all measures are reported in Table 5.

Table 5

Intercorrelations, Means and Standard Deviations for all Measures (Experiment 5)

	<i>M</i>	<i>SD</i>	1	2	3
1. Collective action	4.23	1.66	-		
2. Anger-related emotions	3.53	1.82	.40***	-	
3. Confidence-related emotions	3.46	1.31	-.09	-.39***	-

Note: *** $p < .001$.

Sexism type marginally predicted participants' readiness to engage in collective action for parity, $B = -.49$, $SE = .29$, $p = .093$, indicating that hostile sexism led to less collective action than did benevolent sexism. Moreover, participants' anger-related emotions were significant predictors of collective action for parity ($B = .45$, $SE = .08$, $p < .001$), but their confidence-related emotions did not significantly predict collective action for parity ($B = .08$, $SE = .11$, $p = .454$). Finally, the direct effect of sexism type on collective action for parity became significant when the proposed mediating psychological processes were taken into account, $B = -.84$, $SE = .27$, $p = .002$ (see Figure 9).

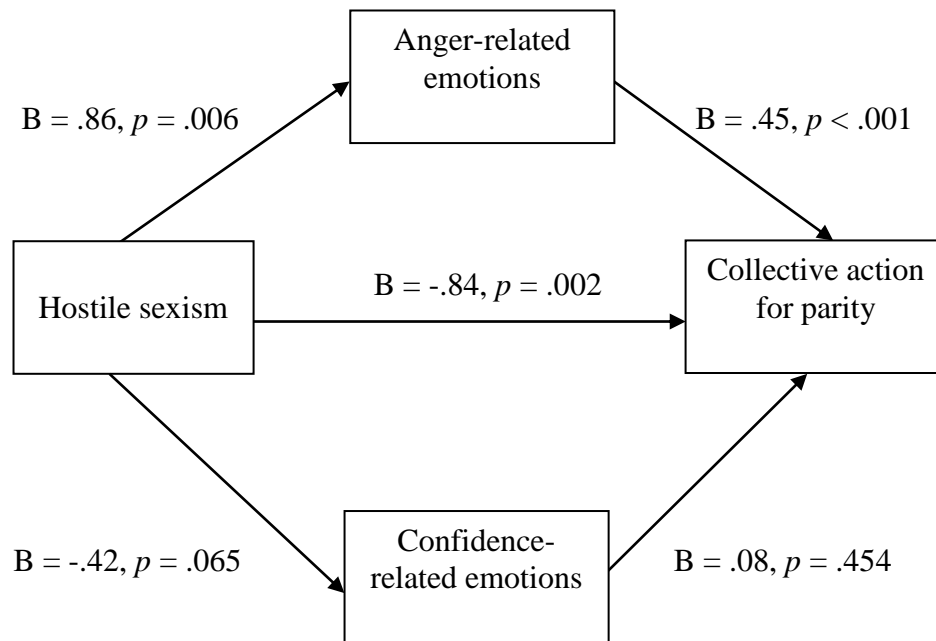


Figure 9. Multiple mediator model of the indirect effects of exposure to hostile sexism on readiness to engage in collective action for parity through anger-related and confidence-related emotions (Experiment 5, $N = 133$; 5000 resamples).

We assessed the significance of the indirect paths using 95% bias-corrected confidence intervals with 5000 bootstrap resamples. There was a significant positive

indirect effect of hostile sexism on collective action for parity through anger-related emotions, $B = .38$, $SE = .15$, 95% CI = [.13, .72]. However, the negative indirect effect through confidence-related emotions, $B = -.03$, $SE = .06$, 95% CI = [-.21, .05] was not significant. These results are consistent with previous findings (e.g., Becker & Wright, 2011) showing that hostile sexism enhances collective action for parity through anger.

Discussion

The total effect of sexism type on collective action for parity intentions was marginally significant and negative, suggesting that exposure to hostile sexism decreased readiness to engage in collective action for parity. This negative total effect is inconsistent with past research (e.g., Becker & Wright, 2011) demonstrating a positive effect. To reconcile these discrepant findings, it is important to note that although there were many similarities between the research conducted by Becker and Wright (2011) and our research with respect to the way in which sexism was operationalized, there was also an important difference that could account for the inconsistent results. Similar to our manipulation of sexism type, these researchers manipulated exposure to hostile and benevolent sexism by presenting participants with sexist statements selected from the Ambivalent Sexism Inventory. These statements represented beliefs that were said to be held by most men, according to some research. By contrast, in our study the sexist beliefs were supposedly shared by a sample of more than 2000 people who had participated in a fictitious research survey. Taken together, these results suggest that when women are exposed to hostile sexist beliefs that are said to be held by most men, they find it easier to attribute those beliefs to men's sexism, and as result express greater readiness to act against gender discrimination. However, when hostile beliefs are presented to women as held by a

group of people that presumably also includes some women, this may lead to perceptions that sexism is more pervasive and therefore less easy to combat, and as a result lowers participants' readiness to engage in collective action for parity.

This negative total effect could not be explained by a negative indirect effect, whereby exposure to hostile sexism reduces collective action intentions through its effect on confidence-related emotions, because this negative indirect effect was not significant. In our earlier research (Lemonaki et al., 2015a, 2015b) we demonstrated that confidence-related emotions are significant predictors of women's readiness to engage in social competition (a finding that was also replicated in Experiment 4), but these emotions do not appear to influence participants' intentions to engage in collective action for parity. A plausible explanation is that the negative indirect effect through confidence-related emotions may depend on the participants' level of identification with traditional women. As we have previously shown (Lemonaki et al., 2015b), high identifiers with traditional women who were exposed to hostile sexism were more likely to experience lower levels of confidence-related emotions, and as a result were less motivated to engage in social competition, by comparison with low identifiers.

Moreover, the negative total effect of exposure to hostile sexism on readiness to engage in collective action for parity may reflect the fact that other critical processes are involved that are unaccounted for by the present analysis. The aim of Experiment 5 was to test opposing affective mechanisms simultaneously in the context of collective action aimed at achieving parity, and to examine whether the negative indirect path linking hostile sexism to social competition intentions (observed in Experiment 4) also applies to collective action for parity. However, as discussed in Chapter 1, previous research has demonstrated the importance of group

efficacy perceptions in increasing group members' willingness to engage in collective action (e.g., Mummendey et al., 1999; Van Zomeren et al., 2004). We did not assess participants' perceptions of group efficacy in the present research, and therefore the relative impact of these perceptions was not taken into account in our model.

Experiment 6

In Experiment 6 we aimed to replicate the findings of Experiment 5 and to address some potential issues. For this reason we introduced two modifications. First, we changed the wording of the hostile sexism article, avoiding any mention of women's assertive behaviour towards men (see Appendix 3). In this way we wanted to make sure that the negative total effect of hostile sexism on collective action for parity intentions, found in Experiment 5, was not due to the specific way in which we manipulated hostile sexism. Second, we used a more inclusive measure of confidence-related emotions by expanding the list of emotions to include 12 emotion terms (i.e., six negative and six positive emotion terms), rather than six. Furthermore, in this experiment we aimed to extend the findings of Experiment 5 by examining whether participants' intentions to engage in collective action for parity would also be reflected in a quasi-behavioural measure, reflecting willingness a) to attend an upcoming meeting launching collective activities to achieve equality between women and men, and b) to provide their email address for future mailings about similar activities.

Method

Participants and experimental design. Female participants in this online experiment were staff and students from Cardiff university and were recruited via the university's electronic noticeboard ($N = 96$). On the basis of an attention check (see below), data from eight participants were omitted from the main analyses because

they failed to pass this check. Two other participants were excluded from the final sample because they only partly completed the questionnaire. Following outlier analysis, a further six participants were omitted from the main analyses. These participants' scores on the anger-related emotions measure (three participants) and on the collective action measure (three participants) were beyond the range defined by the whiskers in Tukey's (1977) box plot (i.e., the score was 1.5 times the interquartile range below the 25th percentile). The 80 who comprised the final sample were women aged between 18 and 56 years ($M = 25.81$, $SD = 9.58$). The independent variable and the proposed mediators were identical to those used in Experiment 5. The dependent variables were *collective action for parity intentions* (as in Experiment 5) and a *quasi-behavioural measure of collective action for parity*.

Procedure and measures. The procedure and many of the measures (emotions, attention check) were similar to those used in Experiment 5. The only procedural difference was the inclusion of the quasi-behavioural measure of collective action for parity that was assessed after the measure of collective action intentions.

Emotions. We measured participants' emotions using the same six emotion terms as those used in Experiments 4 and 5 but added three more emotion terms per category (*irritated*, *annoyed*, and *indignant* for the anger-related emotions; and *competent*, *efficient*, and *capable* for the confidence-related emotions). Most of these emotions have been previously used to measure participants' feelings of anger (e.g., angry, indignant, irritated, frustrated; Barreto & Ellemers, 2005b) and comfort (e.g., self-confident, secure, competent, comfortable; Swim et al., 2001) following exposure to sexism. Participants were asked to rate the extent to which they, as women, felt each of 12 emotions (six negative: *angry*, *frustrated*, *resentful*, *irritated*, *annoyed*, and *indignant*; and six positive: *secure*, *comfortable*, *confident*, *competent*, *capable*, and

efficient) after reading the article. Responses were given on a 7-point rating scale ranging from 1 (*not at all*) to 7 (*extremely*). We constructed an ‘anger-related’ and a ‘confidence-related’ emotions scale by averaging responses on the six negative ($\alpha = .93$) and six positive ($\alpha = .89$) emotion items, respectively. The two emotion scales were negatively correlated ($r = -.42, p < .001$).

Collective action for parity intentions. We measured participants’ collective action intentions using the same four items as in Experiment 5 ($\alpha = .89$).

Quasi-behavioural measure of collective action for parity. After completing the collective action intentions measure, participants read the following message from the experimenter: “You are now approaching the end of the study. Before that we would like to draw your attention to the following: The Gender-Related Issues Programme (Cardiff) has kindly asked all the researchers at Cardiff University to make our participants aware of some upcoming activities of their Programme. For further information please click the ‘Continue’ button below”. By clicking the button, they were presented with an announcement from the (fictitious) Gender-Related Issues Programme (see Appendix 4). The announcement, which was headlined “Towards gender equality in political representation,” began by reporting some statistics highlighting women’s under-representation in politics throughout Europe, and then invited participants to attend an upcoming meeting. The meeting was ostensibly launching a series of protest actions in favour of equal representation of women and men in key political decision-making positions. Participants were asked to indicate their willingness to attend the meeting by clicking a button. In the hostile sexism condition 73.7% of participants and in the benevolent sexism condition 66.7% of participants indicated their willingness to attend the meeting. Finally, they were asked to provide their email address if they wanted to be included in a mailing list for

future activities of this type. In the hostile sexism condition 55.3% of participants and in the benevolent sexism condition 54.8% of participants indicated their willingness to provide their email address.

There was a positive correlation between the measure of collective action for parity intentions and the quasi-behavioural measures: participants' willingness to attend the meeting ($r = .39, p < .001$); and participants' willingness to provide their email address ($r = .33, p = .002$). Also, the two quasi-behavioural measures were positively correlated with each other ($r = .50, p < .001$).

Attention check. This was assessed in the same way as in Experiments 4 and 5. Participants with an attention score of 5 or below were excluded from the main analyses. As noted above, we identified 8 (of whom 5 were in the hostile sexism condition and 3 in benevolent sexism condition) who were screened out on this basis.

Manipulation check. After the attention check participants were asked to indicate the extent of their agreement with the following two items: "The survey described some frankly positive beliefs about women," and "The survey described some frankly negative beliefs about women" (reverse-coded). Responses to these items were rated on a 7-point scale (1 = not at all, 7 = strongly). We computed a manipulation check index by averaging responses to these two items ($r = .79, p < .001$).

Results

Manipulation check. The manipulation check showed that the manipulation of sexism type was successful. An independent samples *t*-test comparing the two experimental conditions revealed a significant effect, $t(77) = 6.72, p < .001$. Participants in the hostile sexism condition rated the survey as significantly less

positive about women ($M = 1.70$, $SD = 0.93$) compared to participants in the benevolent sexism condition ($M = 3.65$, $SD = 1.55$).

Sexism type and emotional reactions. Two independent samples t -tests were performed, comparing the hostile and benevolent sexism conditions on the emotion measures. The results revealed a significant effect of sexism type on anger-related emotions, $t(63.48) = -2.54$, $p = .014$, indicating that exposure to the hostile sexism article led to significantly more anger-related emotions ($M = 4.77$, $SD = 0.98$) than did exposure to the benevolent sexism article ($M = 3.94$, $SD = 1.87$). The effect of sexism type on the expanded (6-item) confidence-related emotions scale was non-significant, $t(78) = 0.81$, $p = .418$. However, the effect of sexism type on the (3-item) confidence-related emotion scale used in Experiments 4 and 5 was marginally significant, $t(78) = 1.88$, $p = .064$, suggesting that the three additional emotions (i.e., competent, capable and efficient) are conceptually distinct from three confidence-related emotions (i.e., secure, comfortable, confident) regularly used in the current research, a difference that presumably reflects a closer relationship with collective efficacy.

Indirect effects of hostile sexism on collective action for parity through emotions. We tested whether there were indirect effects of exposure to hostile sexism on readiness to engage in collective action for parity through emotions using the same procedure as the one used in Experiments 4 and 5. Means, standard deviations and bivariate correlations between all measures are reported in Table 6.

Table 6

Intercorrelations, Means and Standard Deviations for all Measures (Experiment 6)

	<i>M</i>	<i>SD</i>	1	2	3
1. Collective action	5.36	1.39	-		
2. Anger-related emotions	4.33	1.56	.13	-	
3. Confidence-related emotions	3.15	1.36	-.14	-.42***	-

Note: *** $p < .001$.

Sexism type significantly predicted participants' readiness to engage in collective action for parity, $B = -1.00$, $SE = .29$, $p = .001$, indicating that hostile sexism led to less collective action than did benevolent sexism. Moreover, participants' anger-related emotions were marginally significant predictors of collective action for parity ($B = .18$, $SE = .10$, $p = .088$), but their confidence-related emotions did not significantly predict collective action ($B = -.10$, $SE = .12$, $p = .410$). Finally, the direct effect of sexism type on collective action for parity remained significant when the proposed mediating psychological processes were taken into account, $B = -1.18$, $SE = .30$, $p < .001$ (see Figure 10).

The significance of the indirect paths was assessed using 95% bias-corrected confidence intervals with 5000 bootstrap resamples. As in Experiment 5, there was a significant positive indirect effect of hostile sexism on collective action for parity through anger-related emotions, $B = .15$, $SE = .10$, 95% CI = [.01, .44], and the negative indirect effect through confidence-related emotions, $B = .02$, $SE = .05$, 95% CI = [-.03, .22] was not significant.

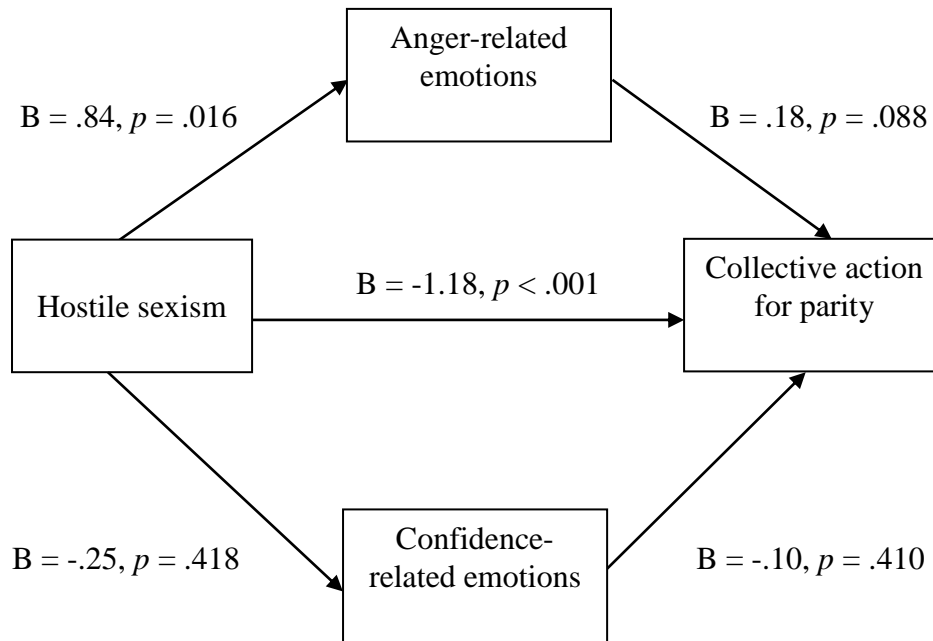


Figure 10. Multiple mediator model of the indirect effects of exposure to hostile sexism on readiness to engage in collective action for parity through anger-related and confidence-related emotions (Experiment 6, $N = 80$; 5000 resamples).

Sexism type, emotions, and quasi-behavioural measure of collective action for parity. We performed a logistic regression to assess the impact of exposure to hostile sexism and participants' emotions on the likelihood that participants would indicate their willingness to attend an upcoming meeting. The full model containing all three predictors (i.e., sexism type, anger-related and confidence-related emotions) was marginally significant $\chi^2(3, N = 80) = 6.38, p = .094$, and explained between 8% (Cox and Snell R^2) and 11% (Nagelkerke R^2) of the variance in willingness to attend the meeting.

To determine whether there were indirect effects of exposure to hostile sexism on readiness to attend the meeting through anger-related and confidence-related emotions, we used the PROCESS procedure for SPSS, and tested a model (Hayes,

2013, model 4) that provides a method of estimating direct and indirect effects with multiple mediators. Both the indirect effect of hostile sexism on willingness to attend the meeting through anger-related emotions, $B = .09$, $SE = .20$, 95% CI = [-.23, .64], and the indirect effect through confidence-related emotions, $B = .10$, $SE = .16$, 95% CI = [-.12, .56] were not significant.

A second logistic regression was performed to assess the impact of exposure to hostile sexism and participants' emotions on the likelihood that participants would provide their email address. The full model containing all three predictors was not significant $\chi^2(3, N = 80) = 4.18, p = .242$, so were the two indirect effects through anger-related and confidence-related emotions.

Discussion

Experiment 6 differed from Experiment 5 in three respects. First, we changed the wording of the hostile article, avoiding using sentences that directly referred to women's assertive behaviour towards men. Second, we assessed participants' emotional reactions using an expanded list of emotions (12 rather than six emotion terms). Finally, we used a quasi-behavioural measure to assess participants' inclination to engage in collective action.

Despite these differences the findings of Experiment 6 replicate those of Experiment 5. There was a significant positive indirect emotional pathway to collective action for parity intentions through anger-related emotions, and a non-significant negative indirect pathway through confidence-related emotions. Finally, our attempt to capture not only intentions but also something closer to behaviour, using a quasi-behavioural measure, did not meet with success. One reason why the indirect effect of hostile sexism on collective action intentions through anger-related emotions was not reflected on the quasi-behavioural measure is that there was a

mismatch between the two types of dependent measure in terms of specificity.

According to the principle of compatibility (Ajzen & Fishbein, 1977; cited in Ajzen, 2005), “Two indicators of a given disposition are said to be *compatible* with each other to the extent that their target, action, context and time elements are assessed at identical levels of generality or specificity. ... [T]he more similar the target, action, context and time elements of one indicator to those of the other, the stronger the statistical relation between them” (p. 86). In our experiment, we assessed participants’ intentions to undertake collective action *in general*; and on the other hand, we asked them to indicate their willingness a) to attend a specific meeting, and b) to provide their email address to be included in the mailing list of a specific programme.

General Discussion

The aim of the present research was to examine a) the impact of hostile sexism on women’s intentions to engage in (competitive) collective action, and b) the underlying psychological processes through which exposure to hostile sexism influences women’s collective action intentions. To achieve this aim we studied the effect of exposure to hostile (vs. benevolent) sexism on female participants’ emotions, and on their readiness to engage in (competitive) collective action. We also explored the role of emotions in accounting for the relation between exposure to hostile sexism and readiness to engage in collective action aimed at competing with and outperforming men (Experiment 4) or at achieving parity with men (Experiments 5 and 6). Finally, we examined whether participants’ intentions to engage in collective action for parity would also be reflected in a quasi-behavioural measure. Taken together, the results of these three experiments show that exposure to hostile sexism increased anger-related emotions and decreased confidence-related emotions. More specifically, exposure to hostile sexism increased anger-related emotions, and thereby

enhanced women's readiness to engage in social competition and in collective action for parity. Additionally, hostile sexism reduced confidence-related emotions, and thereby decreased social competition intentions (Experiment 4). In Experiment 5 exposure to hostile sexism marginally decreased confidence-related emotions, but did not affect participants' readiness to engage in collective action for parity. Finally, in Experiment 6 hostile sexism did not have a significant effect on participants' confidence-related emotions or their readiness to engage in collective action for parity. As discussed above, the lack of effect on emotions could be attributable to the fact that the three additional emotions are related to collective efficacy rather than confidence.

The positive indirect effect of hostile sexism on readiness to engage in collective action aimed either at outperforming men or at achieving parity with men, through increased anger, is consistent with past evidence that hostile expressions of sexism increase (support for) collective action for parity (Becker & Wright, 2011, Study 2; Ellemers & Barreto, 2009) and social competition intentions (Lemonaki et al., 2015a, 2015b) through group-based anger. Perhaps unsurprisingly, anger generated by hostile sexism appears to fuel a willingness to strive not only to achieve parity with men, but also to compete with men and outperform them.

Additionally, consistent with our past research (Lemonaki et al., 2015a, 2015b), we found evidence of a negative indirect effect of hostile sexism on readiness to engage in collective action aimed at outperforming men through decreased emotions of security, comfort and confidence (i.e., a lack of collective self-confidence). This finding is consistent with evidence that the experience of sexism decreases women's feelings of comfort (Swim et al., 2001), and extends prior research by showing that these emotions are important determinants of socially competitive

collective action, in addition to the more predictable effects of anger. However, we did not find support for the existence of a negative indirect pathway through which hostile sexism influences women's intentions to engage in collective action for parity. Furthermore, emotions of security, comfort and confidence were not significant predictors of this type of collective action. Together these findings suggest that although group members need to feel confident about their ingroup in order to be willing to compete with a higher status outgroup, feelings of confidence does not appear to influence their willingness to engage in collective actions aimed at achieving equality. Nevertheless, given that the total effect of exposure to hostile sexism was to decrease women's readiness to engage in social competition and collective action for parity, this should be interpreted with caution. There must be something in hostile sexism that makes its impact on collective action for parity negative. As discussed above, a plausible explanation is that the negative indirect effect through confidence-related emotions may depend on the participants' level of identification with traditional women. Future research could measure level of identification with female subtypes as a potential moderator of this effect.

Another possible explanation is that exposure to hostile sexism triggers negative stereotypes about women such as the belief that women are less competent and capable than men, and therefore less suitable for taking on high status positions. These negative stereotypes may make women feel less confident about their gender ingroup and thereby demotivate them from engaging in social competition with men because, as suggested by the stereotype threat literature (e.g., Spencer, Steele, & Quinn, 1999; Steele & Aronson, 1995), they might be afraid of confirming these negative stereotypes (e.g., by failing to prove that they are better and more suitable for high status positions than men). Trying to avoid the likelihood of confirming these

negative stereotypes, in combination with the lack of collective self-confidence induced by hostile sexism, could explain women's lack of motivation to engage in social competition. Engaging in collective action is stressful and uncertain given that group members do not know, in advance, whether their efforts will have the desired outcome. Moreover, depending on the aim of collective action this uncertainty should increase. For example, aiming to compete with and outperform a higher status outgroup is more challenging than aiming to achieve equality with this outgroup. Therefore, group members need to feel confident about their ingroup in order to engage in social competition. It is therefore not surprising that feelings of collective self-confidence appear to be an important precondition for social competition (but not for collective action for parity) in the current research.

An alternative explanation could be offered based on research (e.g., Glick, Diebold, Bailey-Werner, & Zhu, 1997) showing that hostile sexism, consisting of negative evaluations and hostile, aggressive comments and behaviours, is usually directed at non-traditional female subtypes such as feminists and career women. By comparison with female subtypes (e.g., housewives) who are seen as consistent with traditional gender roles, non-traditional subtypes are viewed as violating these roles and challenging current socio-structural relationships between men and women. Consistent with the above, women who engage in agentic behaviours (e.g., choosing to pursue a career in a male-dominated domain) and display agentic traits are viewed as violating the stereotypic prescriptions of feminine niceness and are disliked (Rudman, 1998; Rudman & Glick, 1999). For example, women leaders who adopt a stereotypically masculine leadership style are evaluated more negatively than their male counterparts (Eagly, Makhijani, & Klonsky, 1992). Thus a display of agency by women can increase their perceived competence but does so at the expense of their

perceived social likability (the backlash effect; Rudman, 1998). Perceptions of insufficient niceness can, in turn, result in hiring discrimination against an agentic female candidate for a managerial role requiring interpersonal skills (Rudman & Glick, 1999, 2001). This 'social cost' may often discourage women from engaging in assertive, competitive behaviours. It could therefore be argued that being exposed to hostile sexism (i.e., negative beliefs about women who are seen to behave assertively and competitively toward men) might particularly discourage women from engaging in social competition with men.

In the present studies we showed that exposure to hostile sexism can strengthen or weaken collective action intentions by influencing different mediating psychological processes. These divergent effects of hostile sexism depend on the goal of the collective action. Although exposure to hostile sexism has a positive indirect effect on social competition and collective action for parity through anger-related emotions, its negative indirect effect through emotions relating to collective self-confidence appear to apply only to social competition. This highlights negative consequences of hostile sexism that go beyond the obvious effect of causing offense. Although hostile sexism is more likely to be identified as a form of discrimination and, as a result, be challenged by women (Ellemers & Barreto, 2009), it can undermine women's readiness to challenge current gender relations by decreasing their collective self-confidence. This negative emotional pathway is especially likely to apply to a specific type of collective action, namely social competition.

Chapter 5: General Discussion

As discussed in Chapter 1, current manifestations of sexism include not only overt and blatant expressions of sexism but also covert and subtle forms (e.g., Benokraitis & Feagin, 1995; Glick & Fiske, 1996; Swim & Cohen, 1997). Due to their implicit nature, subtle forms of sexism are more likely than more blatant forms to go unnoticed and remain unchallenged (e.g., Barreto & Ellemers, 2005a, 2005b), and research attention has therefore shifted toward the insidious dangers of benevolent sexism and how it contributes to the maintenance of gender inequality. For example, it has been found that exposure to benevolent sexism undermines women's decisions to challenge the gender status quo, either by decreasing their engagement in collective action (Becker & Wright, 2011; Ellemers & Barreto, 2009), or less directly by increasing system justification among women (Jost & Kay, 2005). However, it is important not to overlook the damaging consequences of hostile sexism. For example, it has been found that hostile sexism is associated with negative evaluations of, and discrimination against a female candidate competing for a managerial role (Masser & Abrams, 2004), with unfavourable attitudes toward women managers (Sakalli-Ugurlu & Beydogan, 2002), and even with denial of uniquely human qualities to women, such as secondary emotions (Viki & Abrams, 2003) and agency (Cikara, Eberhardt, & Fiske, 2011).

In a quest for a better understanding of women's reactions to hostile sexist attitudes, the aim of the research reported in this thesis was to investigate the emotional impact of hostile sexism, and its subsequent influence on women's readiness to challenge the current gender status quo by engaging in collective action. In the first part of the present research (Chapter 2), we simultaneously tested opposing affective mechanisms underlying the effects of hostile sexism on women's collective

action intentions in the context of a relatively under-researched form of collective action, namely social competition. The second part of the present research (Chapter 3) tested whether the extent to which women identify with different types of women, namely traditional women and feminists, moderates the effect of exposure to hostile sexism (as compared to benevolent sexism) on their emotions and competitive collective action intentions. The third and final part of this thesis (Chapter 4) tested whether the divergent effects of hostile sexism on women's social competition intentions also apply to women's intentions to engage in collective action aimed at achieving parity.

5.1. The Divergent Effects of Hostile Sexism on Social Competition Intentions

Hostile sexism is still undeniably prevalent in cultures around the globe (e.g., Glick et al., 2000), even in cultures like the UK that ostensibly endorse an egalitarian ideology (Bates, 2014), yet women who experience discrimination do not necessarily challenge it (e.g., Swim & Hyers, 1999). Moreover, it has been shown that perceived sexism and discrimination not only increases anger (e.g., Ellemers & Barreto, 2009) but can also decrease feelings of comfort (Swim, Hyers, Cohen, & Ferguson, 2001), and that competing emotional reactions in response to unfair treatment by an outgroup can adversely affect ingroup members' willingness to engage in collective action (Miller, Cronin, Garcia, & Branscombe, 2009). In the research presented in this thesis, we therefore proposed that exposure to hostile sexism, as well as giving rise to anger, can elicit emotions that *demotivate* collective action. Women exposed to hostile sexism may experience lower levels of security and comfort, and as a result feel less ready to confront the outgroup by engaging in collective action. Furthermore, an important and relatively neglected distinction that needs to be made concerns the specific goal of collective action. Although the general aim of collective action is to

improve the ingroup's current disadvantaged position, this aim can entail either *striving to achieve equality* with the higher-status outgroup (i.e., collective action for parity) or *striving to outperform* the higher-status outgroup (i.e., social competition). Prior research on sexism (Becker & Wright, 2011; Ellemers & Barreto, 2009) has focused on collective action aimed at achieving equal status for women and men. In the present research, we mainly focused on collective action aimed at achieving higher status for women than men through social competition.

In Chapter 2, we examined the ways in which exposure to hostile sexism (compared to benevolent sexism) influences women's emotions (i.e., anger-frustration and security-comfort) and their readiness to engage in social competition with men. The first study examined the proposed causal link between feelings of security and comfort and social competition intentions experimentally. In keeping with our hypothesis, participants who were experimentally led to experience lower levels of security and comfort were significantly less ready to engage in social competition. The results of Experiment 2 provided evidence of two emotional pathways linking exposure to hostile sexism to social competition intentions: a positive indirect pathway through anger-frustration, and a negative indirect pathway through security-comfort. Exposure to hostile sexism increased feelings of anger and frustration and thereby enhanced women's readiness to engage in social competition with men, but decreased feelings of security and comfort and thereby decreased social competition intentions. The net impact of these two mechanisms was lower readiness to compete socially with men after exposure to hostile sexism.

Our findings extend previous research in several important ways. We showed that the established positive indirect effect of hostile sexism on collective action for parity through anger (e.g., Becker & Wright, 2011) also holds true for a measure of

collective action that focuses on social competition, rather than parity. More importantly, we found evidence that exposure to hostile sexism also reduces women's feelings of security and comfort. This finding is consistent with evidence that the experience of sexism decreases women's comfort (Swim et al., 2001), and extends prior research by showing that emotions of security and comfort (i.e., a sense of collective self-confidence) are important determinants of socially competitive collective action. The results also highlight the importance of distinguishing between the different objectives of collective action. Both collective action for parity and social competition entail collective attempts to improve the ingroup's relative status. However, aiming to compete with and outperform a higher status outgroup is presumably more challenging than simply aiming to achieve equality with this outgroup. Therefore, group members need to feel secure and comfortable about their ingroup's ability to act collectively and change the current intergroup situation (Experiment 1) and about their ingroup in general (Experiment 2) in order to (be willing to) compete with a higher status outgroup.

Dictated by the egalitarian norms that currently prevail in most western democracies, subtle manifestations of sexism have become common in many contemporary societies (e.g., Benokraitis & Feagin, 1995; Swim & Cohen, 1997). This has justifiably shifted research attention on the insidious dangers of benevolent sexism. For example, exposure to benevolent sexism has been shown to undermine women's decisions to challenge the gender status quo, by decreasing their engagement in collective action (Becker & Wright, 2011; Ellemers & Barreto, 2009). Refocusing research attention on the dangers of hostile sexism is an important contribution of the present research. Despite the fact that hostile sexism is more likely to be identified as a form of discrimination (Barreto & Ellemers, 2005b), and as a

result may give rise to the experience of anger and to increased collective action intentions (Ellemers & Barreto, 2009), this is not always the case. Our research shows that exposure to hostile sexist beliefs can also decrease emotions relating to collective self-confidence, and can thereby undermine women's assertive, competitive inclinations towards men.

5.2. The Moderating Role of Identification

In Chapter 2 we showed that exposure to hostile sexism has a positive indirect effect on women's social competition intentions through emotions relating to anger, and a negative indirect effect through emotions relating to collective self-confidence. Moreover, we argued that the relative influence of these divergent effects on social competition intentions through different emotional pathways might depend on women's level of identification with different female subtypes. The aim of the research presented in Chapter 3 was to test this assumption by examining the role of women's identification with traditional women or feminists in moderating the effect of exposure to hostile sexism on their emotions and competitive collective action intentions. Because hostile sexism is not usually directed at women who conform to traditional subtypes (e.g., Glick, Diebold, Bailey-Werner, & Zhu, 1997), those who identify highly with traditional women and who were exposed to hostile sexist beliefs were expected to experience lower levels of confidence-related emotions, and thereby be less motivated to engage in social competition. By contrast, because hostile sexism is usually directed at non-traditional female subtypes, such as feminists, those who identify highly with feminists and who were exposed to hostile sexism were expected to experience more anger-related emotions, and as a result express greater readiness to engage in social competition with men.

In keeping with the findings reported in Chapter 2, one experiment provided evidence of both a positive and a negative indirect emotional pathway linking exposure to hostile sexism to social competition intentions. Exposure to hostile sexism increased anger-related emotions, and thereby enhanced readiness to engage in social competition. Moreover, exposure to hostile sexism evoked lower levels of confidence-related emotions, and thereby decreased readiness to engage in social competition. In terms of the moderating role of identification, the findings partly supported our predictions. We did not find support for our prediction that the positive indirect pathway through anger-related emotions would especially apply to women who identified highly with feminists. The experience of increased anger as a response to hostile sexism was induced regardless of identification. Moreover, an unexpected finding was that highly identified traditional women, to the extent that they felt angry, reported greater readiness to engage in social competition, by comparison with their counterparts who identified less with traditional women. In line with our prediction, we found that the negative indirect pathway through confidence-related emotions was especially likely to apply to a specific subgroup of women, that is, highly identified traditional women. When highly identified traditional women (compared to those who identified less with traditional women) were exposed to hostile sexism, they were more likely to experience lower levels of confidence-related emotions, and as a result were less ready to engage in social competition. This finding underlines the importance of focusing research attention on the specific content of gender identification, and therefore taking multiple sub-identifications within gender identity into account when examining perceptions of and reactions to gender discrimination.

As noted in Chapter 1, traditional identifiers regard women as positively distinct from men, rather than perceiving their gender group to be of lower status than

men (Condor, 1984; cited in Becker & Wagner, 2009), and presumably this is why traditional identifiers do not challenge current gender status relations. However, our findings suggest that this may not always be the case. We showed that relative to their less highly identified counterparts, highly identified traditional women, to the extent that they felt angry, and presumably because they consider themselves as positively distinct from men, reported greater readiness to engage in social competition. In this particular context, perceptions of women's positive distinctiveness from men can be a significant facilitator of women's social competition intentions (see also discussion of group affirmation, below). Future research could investigate this possibility.

Importantly, the present research suggests an alternative interpretation of why women may refrain from challenging the status quo. For highly identified traditional women, hostile sexism appears to deplete the emotional reserves needed to engage in social competition.

Finally, it is worth noting that the identification measure (i.e., the proposed moderator) was administered separately and not included it in the main questionnaire. Two weeks prior to the experiment, all participants had taken part in a mass testing session in which, amongst other measures, they completed measures of identification with subtypes of women. Had we have measured identification immediately before the experimental manipulation of sexism, we might have run the risk of sensitizing participants to gender identity. This, in turn, might have had an impact on the influence of the sexism manipulation. Thus, this is a methodologically cleaner way to test moderation that strengthens the claim of a moderated mediation because it rules out the possibility that the extent to which participants self-identified with different subtypes of women interfered with the manipulation of sexism type.

5.3. Testing the Divergent Effects of Hostile Sexism on Different Types of Collective Action

As noted already, prior studies (Becker & Wright, 2011; Ellemers & Barreto, 2009) have demonstrated that hostile expressions of sexism increase support for collective action to achieve parity between ingroup and outgroup through their effect on anger. In Experiments 2 and 3 (reported in Chapters 2 and 3, respectively) we showed that this effect generalizes to a measure of collective action that focuses on social competition, rather than parity. We also showed that exposure to hostile sexist beliefs decreases socially competitive collective action intentions through its impact on emotions relating to collective self-confidence. What remained unclear was whether this negative indirect path also applies to collective action aimed at achieving parity. The goal of the research presented in Chapter 4 was to address this question.

In previous research (Experiments 2 and 3), we showed that exposure to hostile sexism can strengthen or weaken collective action intentions by influencing different mediating psychological processes. These divergent effects of hostile sexism depend on the specific goal of the collective action. Exposure to hostile sexism has a positive indirect effect on women's intentions to engage in social competition and collective action for parity through anger-related emotions. However, the negative indirect effect of hostile sexism through emotions relating to collective self-confidence appears to apply only to social competition intentions. It seems, then, that the negative indirect emotional pathway through confidence-related emotions may only or especially apply to a specific type of collective action, namely social competition. Aiming to compete with and outperform a higher status outgroup is more challenging than aiming to achieve equality with this outgroup. Perhaps group members need to feel confident about their ingroup in order to (be willing to) engage

in social competition. It is therefore not surprising that confidence-related emotions appear to be an important precondition for social competition (but not for collective action for parity) in the current research. As discussed in Chapter 4, although this is a plausible explanation, it should be interpreted with a degree of caution. The negative indirect effect of exposure to hostile sexism on collective action for parity intentions through confidence-related emotions may depend on the participants' level of identification with traditional women (see Chapter 3, Experiment 3). Future research could measure level of identification with different female subtypes as a potential moderator of this effect.

5.4. Implications for Theories of Collective Action

Research on the emotional antecedents of collective action has mainly focused on the role played by negative emotions in predicting disadvantaged group members' willingness to engage in collective action. The emotion that has gained most attention and has been regarded as an important motivation for collective action is group-based anger (e.g., Van Zomeren, Spears, Fischer, & Leach, 2004). More recently, researchers have found that the emotional experience of contempt (Tausch et al., 2011) can also facilitate collective action (especially violent non-normative forms), whereas other negative emotions such as fear and anxiety (Miller et al., 2009) can function as inhibitors of collective action. There is also research (Drury & Reicher, 2009) that has examined the role of positive emotions (e.g., euphoria, exhilaration) but these are studied as outcomes of collective action participation. In line with Wright's (2009) call to widen the array of emotional predictors of collective action, as well as identifying predictors for different forms of collective action, the research reported in this thesis focuses not only on the role of group-based anger, but also on the role of positive emotions, namely confidence-related emotions, in predicting

group members' readiness to engage in collective action (aimed at outperforming or at achieving parity with the outgroup).

The focus on positive emotions is important for two main reasons. First, in light of research evidence (Stürmer & Simon, 2009) that anger is not always a reliable predictor of collective action participation, it suggests an alternative emotional predictor of collective action. Stürmer and Simon (2009) found a limited role of anger in predicting collective protest. Anger only predicted participants' willingness to engage in protest activities that would reduce their negative affective state, and not those activities suited to attaining their collective goal. Therefore, if the effect of group-based anger on collective action participation is driven by people's motives to defuse their anger, they might choose less effortful and costly means to do so than participating in collective action. Moreover this might especially be true when the goal of collective action is more demanding. Our research provides preliminary evidence that emotions relating to collective self-confidence are important determinants of collective action that aims to outperform and not merely to achieve parity with the higher status outgroup. Thus, our research suggests that a single emotional predictor does not necessarily facilitate all types of collective action, and underscores the importance of identifying predictors of different forms of collective action.

A second reason for thinking that the present focus on positive emotions is important is that identifying the mechanism by which hostile expressions of sexism deter women from challenging the status quo through engaging in competitive collective action can inform interventions that counteract this negative influence. There is research (Stout, Dasgupta, Hunsinger, & McManus, 2011) showing that exposure to successful female role models in stereotypically masculine domains can

counteract the effects of negative gender stereotypes and have positive effects on women's self-confidence about their ability in such domains. Consistent with this research, the findings reported in Chapter 2 (Experiment 1) suggest that exposing women to information about their gender group's collective achievements can protect women from the deleterious effects of hostile sexism and increase their motivation to engage in social competition by enhancing their collective self-confidence. Thus our results suggest that attempts to motivate low-status group members to engage in competitive collective action could follow either an anger-related or a confidence-related emotional route. On the one hand, such attempts could focus on the illegitimacy or unfairness of the ingroup's disadvantaged position, and thereby elicit group-based anger. On the other hand, attempts to increase group members' collective self-confidence could focus on the ingroup's collective achievements, or on what Wright (2001) has termed perceptions of collective control (i.e., beliefs about the instability of the intergroup situation, and the ingroup's collective efficacy to bring about change). In the present research we did not provide direct evidence for these processes. Future research should therefore investigate these possibilities.

In the present research we examined the role of identification with different female subtypes in moderating the underlying mechanisms that lead from exposure to sexist beliefs to collective action intentions. Our results are broadly congruent with research that has demonstrated the importance of ingroup identification in eliciting group-based emotions (e.g., Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003), and motivating participation in collective action on behalf of the ingroup (e.g., Simon et al., 1998). Furthermore, our results highlight the importance of focusing research attention on the specific content of ingroup identification (e.g., Van Zomeren, Postmes, & Spears, 2008). We provide preliminary evidence that women who identify

highly with specific female subtypes, namely traditional women and feminists, respond differently to sexist hostility towards their gender group. Although we did not find evidence for the prediction that highly identified feminists would respond to sexism through the anger emotional pathway (possible reasons for this were discussed in Chapter 3), we showed that the confidence emotional pathway is especially likely to apply to highly identified traditional women.

Just as women in their daily lives experience not only benevolent but also hostile expressions of sexism, members of other traditionally oppressed or stigmatized groups experience both overt and subtle instances of prejudice as an integral part of their everyday lives (Swim, Cohen, & Hyers, 1998; cited in Swim et al., 2001). Although the research reported in this thesis focuses on how blatant expressions of sexism can decrease women's readiness to engage in collective action, our findings also have implications for other disadvantaged social groups. Overt manifestations of prejudice towards members of ethnic or racial minorities (i.e., racism) or people of lower socio-economic status (i.e., classism) may well have the same deterrent effects on their willingness to challenge their disadvantaged position by engaging in social competition.

5.5. Implications for Neighbouring Fields

The concepts of hostile and benevolent sexism are broad and multi-faceted. It is therefore inevitable that there is some overlap with other theories and research on intergroup processes. Below I explore some implications of the present work for two neighbouring fields: stereotype threat and the role of gender in leadership.

5.5.1. Stereotype Threat

In situations where a negative group stereotype may be relevant, group members can experience stereotype threat, that is, an apprehension about the

possibility of being judged or treated in terms of the negative stereotype associated with the ingroup or of confirming this stereotype (e.g., Spencer, Steele, & Quinn, 1999; Steele & Aronson, 1995; Steele, 1997). Stereotype threat has been found to impair group members' performance in stereotype-relevant domains. For example, it has been found that the activation of negative gender-related stereotypes about women's ability in mathematics or men's ability in social sensitivity significantly undermined women's performance in a math test (Spencer et al., 1999) and men's performance in a test of social sensitivity (Koenig & Eagly, 2005), respectively. Moreover, according to the disidentification hypothesis (e.g., Steele, 1997), the chronic experience of stereotype threat in an academic or professional domain can psychologically disengage members of negatively stereotyped groups from the threatening domain, in order to avoid the evaluative threat they might experience in that domain (see also Spencer et al., 1999). In line with this hypothesis, stereotype threat has been found to decrease women's leadership aspirations (Davies, Spencer, & Steele, 2005), and reduce working women's perceived likelihood of achieving their career goals and thereby increase their intentions to quit their job (Von Hippel, Issa, Ma, & Stokes, 2011).

Viewing our results in light of the stereotype threat literature, it could be argued that the hostile sexism condition may have been experienced by women participants as a stereotype threat. Exposure to hostile sexism may have triggered negative gender stereotypes (e.g., that women are less competent and capable than men, and therefore less suitable for taking on high status positions), and thereby led women to refrain from engaging in social competition, presumably in an attempt to avoid the likelihood of confirming these negative stereotypes (e.g., by failing to prove that they are better and more suitable for high status positions than men).

Furthermore, in line with the disidentification hypothesis our results suggest that the mere anticipation or the actual encounter of hostile sexist behaviour in male-dominated domains such as in science and leadership (in which women are under-represented and negatively stereotyped) may be experienced as threatening by women, and thereby negatively influence their motivation to pursue a career or excel in such domains. It should be noted that the domains in which disadvantaged groups are negatively stereotyped are more often than not status-defining domains (e.g., Derks, Van Laar, & Ellemers, 2009). In this way exposure to sexist hostility can lead women to contribute to the persistence of gender inequality through their avoidance of high-status roles in which they do not stereotypically fit.

In terms of the underlying psychological process that could account for the effects of stereotype threat, there is empirical evidence (e.g., Osborne, 2001; Spencer et al., 1999) that anxiety is a possible explanation of these effects. The negative indirect effect through confidence-related emotions that we found offers an alternative, but complementary explanation of how stereotype threat might operate. Negative stereotypes about women (activated by exposure to sexist hostility) and the fear of confirming these stereotypes may decrease women's collective self-confidence and thereby demotivate their assertive, competitive inclinations, perhaps in addition to triggering anxiety (which we did not study). Furthermore, consistent with previous research (e.g., Schmader, 2002) showing that women with high levels of gender identification were more susceptible to the negative effects of stereotype threat, we found that this negative indirect effect is especially likely to apply to highly identified traditional women.

Research on ways to counteract stereotype threat has demonstrated the effectiveness of self-affirmation interventions. For example, it has been found that

self-affirmation (e.g., focusing on their most valued characteristic) reduced the negative impact of stereotype threat on women's math performance (Martens, Johns, Greenberg, & Schimel, 2006), and that group affirmation (e.g., emphasizing the ingroup's high performance in another domain) reduced the negative influence of social identity threat on (highly identified) women's motivation to improve in the status-defining domain and on their willingness to engage in collective action (Derks et al., 2009). In line with the above, it could be argued that group affirmation, such as affirming valued ingroup characteristics or success in an alternative ingroup domain, which is nevertheless non-complementary to the status-defining outgroup domain (for a discussion of why this distinction is important, see Becker, 2012), could be used strategically to boost collective self-confidence among women confronted with sexist hostility, and thereby offset the negative effect of hostile sexism on women's confidence-related emotions and social competition intentions. Future research should investigate this possibility.

Dar-Nimrod and Heine (2006) examined whether the negative consequences of stereotype threat are affected by genetic versus experiential explanations about the origins of stereotypes. These authors argued that when group members view the origins of a stereotype about their ingroup in essentialized terms (e.g., as biologically determined) they tend to perceive that stereotype as unavoidable (i.e., they feel that the stereotype applies to them) and this, in turn, renders them vulnerable to stereotype threat. In line with their argument, they found that women who were exposed to genetic explanations about math-related gender differences performed worse on mathematics tests than those who were exposed to experiential explanations.

More recently, Morton, Postmes, Haslam, and Hornsey (2009) showed that essentialist beliefs about gender differences may also contribute to the maintenance of

gender inequality. Specifically, these authors demonstrated that men can strategically express sexism through essentialism when their current higher status is threatened by the prospect of social change. Moreover, they showed that exposure to essentialist ideas about gender has the potential to discourage women from challenging the status quo, by increasing perceptions that social inequality is legitimate, and that social change is less likely.

In light of these findings, it would be interesting for future research to test the interaction between sexism and essentialism on women's emotional reactions and action intentions. It seems reasonable to assume that the negative effect of exposure to hostile sexism on women's confidence-related emotions and social competition intentions would be strengthened if sexist hostility is expressed in essentialized terms. More interestingly, the expression of sexist hostility in non-essentialized terms might in turn counteract the negative consequences of hostile sexism.

5.5.2. The Role of Gender in Leadership

According to the role congruity theory of prejudice (Eagly & Karau, 2002), perceived incongruity between female gender roles and leadership roles leads to two forms of prejudice towards female leaders (or potential leaders). First, by comparison with men, women are evaluated less favourably with respect to their potential to take on leadership positions because leadership ability is more stereotypical of men than women (as a result of the incongruity between the descriptive content of the female gender role and the leadership role). Second, the actual behaviour of women leaders is evaluated less favourably than that of male leaders because such behaviour is perceived as less desirable in women than in men (as a result of the incongruity between the prescriptive content of the female gender role and the behaviour of a leader). In a similar vein, the display of agentic behaviour (consistent with the

requirements of the leader role) by women is viewed as violating the stereotypic prescriptions of ‘feminine niceness’ (Rudman, 1998; Rudman & Glick, 1999), and can result in discrimination against agentic female candidates for a managerial role (Rudman & Glick, 1999, 2001), and negative evaluations of female leaders who adopt a stereotypically masculine leadership style (Eagly, Makhijani, & Klonsky, 1992).

A recently documented form of gender discrimination in the workplace suggests that women’s perceived suitability for leadership positions is likely to increase under conditions of organizational crisis. According to the “glass cliff” phenomenon (Ryan & Haslam, 2005, 2007), women are more likely than men to be appointed to precarious leadership positions that are associated with greater risk and increased possibility of failure. In terms of women’s reactions to this form of discrimination (Ryan, Haslam, & Postmes, 2007), women who identified highly with their gender ingroup were more likely to perceive the glass cliff phenomenon as prevalent, unfair and dangerous for women, as well as a barrier to their career prospects in organizations. Also, they were more likely to see factors such as men’s ingroup favouritism or blatant sexism as explanations for the glass cliff phenomenon. In a manner consistent with research on the effects of blatant expressions of sexism on collective action (Becker & Wright, 2011; Ellemers & Barreto, 2009), Iyer and Ryan (2009) found that highly identified women were more likely to perceive the glass cliff as illegitimate, to experience anger about it, and as a result to express stronger intentions to participate in collective action. Taking into account women’s reactions to and the explanations that they offered for the glass cliff phenomenon, it could be argued that this form of discrimination was seen by women not as subtle sexism but rather as a manifestation of sexist hostility towards women in the workplace. The research reported in this thesis could therefore offer valuable insights into how

exposure to this form of gender discrimination might affect women's (collective) leadership aspirations.

5.6. Practical Implications

In addition to the theoretical contributions and implications outlined above, our research also has practical implications. As discussed in Chapter 1, women report experiencing hostile manifestations of sexism in their daily lives, often in the form of demeaning and degrading comments and behaviours (Swim et al., 2001). The workplace constitutes a prominent environment for the occurrence of gender discrimination. For example, hostile sexism is associated with lower employment recommendations of female candidates for a management position (Masser & Abrams, 2004). Women who choose to pursue a career in a male dominated domain and who display agentic traits are perceived as competent but also as insufficiently nice (Rudman, 1998; Rudman & Glick, 1999), and are confronted with hiring discrimination when applying for a managerial role that requires interpersonal skills (Rudman & Glick, 1999, 2001). Moreover, hostile sexists hold less favourable attitudes toward women managers (Sakalli-Ugurlu & Beydogan, 2002), and female leaders who adopt a stereotypical masculine leadership style are evaluated less favourably than their male counterparts (Eagly et al., 1992).

Competitive situations such as ones in which candidates compete to get a job or to get promoted to a senior position occur frequently in work contexts. In these competitive situations people do not strive merely to keep up; they strive to outperform others. Such situations motivate individuals to fulfil their potential and perform to their utmost. However, our research suggests that encountering hostile sexism in a competitive context can have negative consequences for women. We have shown that exposure to hostile sexism decreases women's emotions relating to

collective self-confidence and thereby undermines women's assertive, competitive inclinations towards men. Women may, therefore, alter their career choices (e.g., not apply for a stereotypically masculine management job) or abandon their aspirations (e.g., not compete with male colleagues to gain promotion to a more senior managerial position) because they feel less confident about their ability to compete successfully. By preventing women from achieving their full potential, sexist hostility thereby contributes to the persistence of gender inequality.

5.7. Limitations and Future Directions

In the research reported in this thesis we manipulated exposure to sexism by means of a newspaper article that ostensibly summarized the results of some survey research, and featured statements containing hostile or benevolent sexist views about women (based on items from the Ambivalent Sexism Inventory; Glick & Fiske, 1996). Across all experiments, using both university students and community samples as participants, we found consistent evidence that there are two emotional pathways through which exposure to hostile sexism influences women's intention to engage in social competition with men. Using the same stimulus material across studies has the advantage that any differences found in the results cannot be attributed to changes to the stimulus material. For example, the aim of the Experiment 4 reported in Chapter 4 was to test the replicability of our findings using a community sample rather than students, and thereby rule out the possibility that our findings are restricted to university students. We showed that our results also apply to other women and are therefore not restricted to university students. Had we have used a different manipulation of sexism and not found the same results, we would not have been able to determine whether such a discrepancy in results was due to the changed manipulation or to the changed sample. Likewise, the aim of Experiments 5 and 6

reported in Chapter 4 was to test whether the negative indirect emotional pathway, linking hostile sexism to social competition intentions through confidence-related emotions, also applies to collective action for parity. In order to draw safe conclusions that any potential differences in the findings were due to the specific type of collective action (i.e., social competition or collective action for parity), rather than the way that we manipulated hostile sexism, it was essential to use the same manipulation of sexism. Thus the consistency in the way we manipulated sexism across studies should be seen as a methodological strength of the present research. However, this is also a limitation because we cannot be sure of the extent to which our findings generalize to other manifestations of sexism. It might be that a different manipulation of hostile sexism would produce a different pattern of results. On the face of it, this seems unlikely because the manipulation used in the current research is fairly subtle, in the sense that it turns on differences in just a handful of words in a description of research results. It seems reasonable to assume that a stronger manipulation would evoke more powerful emotional reactions and therefore similar (if not stronger) patterns of effects on the outcome measures. However, we cannot rule out the possibility that different findings would be obtained and it would therefore be important for future research to replicate and strengthen the current findings using a different manipulation of sexism.

A second possible limitation of the present research is that we assessed intentions to engage in social competition and collective action for parity, rather than actual behaviours. Nevertheless, this, too, could be considered a strength. According to Van Zomeren and Iyer (2009), being able to understand the predictors of attitudes towards collective action, and of intentions and action tendencies to participate in collective action can offer valuable insights into the social and psychological

dynamics that underlie actual participation at a later point. In the final experiment reported in Chapter 4 we attempted to capture not only collective action for parity intentions but also something closer to behaviour, using a ‘quasi-behavioural’ measure. However, for reasons discussed in that chapter, this attempt was unsuccessful. This lack of success was attributed to a mismatch in terms of specificity between the two types of dependent measure we used (see Ajzen, 2005). It will therefore be important for future research testing our model to assess intentions to engage in collective action and behavioural manifestations of collective action at the same level of specificity. Behavioural manifestations could include display of competitive behaviour towards outgroup members, or actual participation in collective action for parity after exposure to hostile sexism.

A third possible limitation of the present research concerns the generalizability of the results reported in Chapter 3. The moderating role of identification with different female subtypes was tested in a single experimental study and with a sample consisting of first year undergraduate students. In line with our prediction, we showed that the negative indirect pathway through confidence-related emotions applied only to those women who identified highly with traditional women. However, we did not find support for our prediction that the positive indirect pathway through anger-related emotions would apply only (or especially) to those women who identified highly with feminists. Future research should test our model using an older, more diverse sample. This would strengthen the finding that the negative indirect emotional pathway is conditional upon identification with traditional women, and might reveal a moderating role for identification with feminists.

5.8. Conclusion

Hostile sexism is still undeniably prevalent in cultures around the globe (e.g., Glick et al., 2000), even in cultures like the UK that ostensibly endorse an egalitarian ideology (Bates, 2014), yet women who experience discrimination do not necessarily challenge it (e.g., Swim & Hyers, 1999). To address the need for a better understanding of how hostile sexist attitudes affect women's reactions, the research reported in the present thesis investigated the emotional impact of hostile sexism, and its subsequent influence on women's readiness to challenge the current gender status quo by engaging in competitive collective action. The findings reveal important differences in the ways that hostile sexism influences women's intentions to compete with men, and highlight the importance of considering the specific content of gender identification, and the significance of identifying the specific goal of collective action when examining women's reactions to sexism. Taken together, the findings show that exposure to hostile sexism positively affects social competition and collective action for parity intentions through increased anger-related emotions, but that it has a negative effect on social competition intentions through decreased confidence-related emotions. Confidence-related emotions are important determinants of socially competitive collective action, but do not appear to influence collective action aimed at achieving parity. Overall, the negative indirect emotional pathway through confidence related-emotions is especially likely to apply to a specific type of collective action (i.e., social competition), and to a specific subgroup of women (i.e., highly identified traditional women).

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Appendices

Appendix 1 (Experiment 1)

Emotion induction manipulation

Feeling secure and comfortable condition

Please read the following article carefully.

<p>built your organization's identity among peers, members, employees or vendors.</p>	<p>Surgeons. Also of note is that the Gibbon is represented as twice that of it's natural size in nature.</p>	<p>Sunflowers, 1 of Ronaldo's League Table university's another. U tables have b guide which employers students b consumers a</p>
<p>Greg Prince MSc Management</p>	<p>Bill Coughlin MSc Sociology</p>	<p>Thus, th league table have direct university p investment policies. We mind that process for tables is alr this proces Therefore, w to see wha assessments will paint. The lat provide a allows us university's quality. In Times Good 2010 we an effectively n race for the place, we a with the be</p>
<p>Together we can!</p>		
<p><i>During the subsequent years, women have proven that when they act together they can achieve a lot.</i></p>	<p>It is nearly 100 years since women, after lengthy collective efforts, finally earned the right to vote, in 1920. This was a great accomplishment for women. And they did not stop there. During the subsequent years, women have proven that when they act together they can achieve a lot. For example, consider the greatly increased number of women who study medicine. As reported in an article published in the February 2008 issue of <i>Ophthalmology Times</i>, "Despite ongoing challenges, there are currently more women in medicine than at any point in history. And ... women continue to gain greater representation in academic medicine and in leadership positions." And the future seems even brighter.</p>	<p>According to the results of a recent study, surveying more than 2000 young women at universities around the UK, more than 95% of the respondents reported that they feel secure and comfortable about women's abilities to work together to advance women's interests. In particular, they said that they feel secure about their ability to match, and even exceed, men's pay in the workplace. They also reported feeling comfortable about their ability to gain a higher social standing than men, and about their ability to call for and eventually achieve much greater representation of women in positions of power.</p>
	<p>Dr Timothy Brown PhD Social Sciences</p>	

Feeling insecure and uncomfortable condition

Please read the following article carefully.

built your organization's identity among peers, members, employees or vendors.

Greg Prince
MSc Management

Surgeons. Also of note is that the Gibbon is represented as twice that of it's natural size in nature.

Bill Coughlin
MSc Sociology

Sunflowers, of Ronaldo League Tab university's another. U tables have b guide which employers students b consumers a

Together we can?

During the subsequent years, despite women's collective efforts to improve their position in society, they have managed to achieve relatively little.

It is nearly 100 years since women, after lengthy collective efforts, finally earned the right to vote, in 1920. This was a great accomplishment for women. However, progress since then has been limited.

During the subsequent years, despite women's collective efforts to improve their position in society, they have managed to achieve relatively little. For example, consider that women are still highly underrepresented in most MBA programs. As reported in an article in *U.S. News and World Report*, "Business schools have traditionally been ... male. Even today, women represent only about 30 percent of M.B.A. enrolment." And the future does not seem much brighter.

According to the results of a recent study, surveying more than 2000 young women at universities around the UK, more than 95% of the respondents reported that they feel insecure and uncomfortable about women's abilities to work together to advance women's interests. In particular, they said that they feel doubtful about their ability to match, let alone exceed, men's pay in the workplace. They also reported feeling uncomfortable about their ability to gain a higher social standing than men, and about their ability to call for and eventually achieve much greater representation of women in positions of power.

Dr Timothy Brown
PhD Social Sciences

Thus, the league table have direct university investment policies. We mind that process for tables is alr this proces Therefore, w to see wha assessments will paint.

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Appendix 2 (Experiments 2, 3, 4 and 5)

Sexism Type manipulation

Hostile sexism condition

Please read the following article carefully.

...out your organization's identity among peers, members, employees or vendors.

Greg Prince
MSc Management

Surgeons. Also of note is that the Gibbon is represented as twice that of it's natural size in nature.

Bill Coughlin
MSc Sociology

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Are they fundamentally different?

Are men and women fundamentally different? Do they think and communicate in different ways? Is a lack of understanding between men and women the major reason for the vast majority of conflicts between them? Those and other questions were addressed in a large scale study published this month by the National Institute of Social Research (N.I.S.R) based on more than two thousand participants living in the UK.

According to this survey, people tend to believe that, under the pretence of striving for equality, women try to gain special favours at the expense of men. Gender relations seem to be driven by a struggle for power: Women aim at outrunning men and they do whatever it takes to achieve more powerful positions. Moreover, people feel that women tend to be too touchy sometimes.

They are too easily offended and they overreact to innocent acts and cute remarks. Additionally, the participants stated that women tend to interpret everything as being sexist, to exaggerate problems they might encounter at work, and even if they justly lose in competitive situations such as in being promoted, women attribute their lack of performance to social discrimination and sexism.

And as far as their interpersonal relations are concerned, people think that women do not seem to appreciate what men do for them. Moreover, responses to the survey suggested that, for women, commitment means to "keep their mate under control". Thus, they tend to use men in accordance with their own desires and to ignore their needs and their feelings.

Dr Timothy Brown
PhD Social Sciences

People tend to believe that, under the pretence of striving for equality, women try to gain special favours at the expense of men.

Benevolent sexism condition

Please read the following article carefully.

Build your organization's identity among peers, members, employees or vendors.

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MSc Management

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Bill Coughlin
MSc Sociology

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Are they fundamentally different?

People believe that women are very sensitive and delicate and sometimes they seem to be so vulnerable that makes men feel responsible for their protection.

Are men and women fundamentally different? Do they think and communicate in different ways? Is a lack of understanding between men and women the major reason for the vast majority of conflicts between them? Those and other questions were addressed in a large scale study published this month by the National Institute of Social Research (N.I.S.R) based on more than two thousand participants living in the UK.

According to this survey, people tend to believe that a man could never feel complete regardless of his attainments unless he has a woman in his life to support him and to care about him. Moreover, people feel that women are unique, with an exceptional sense of morality and empathy for those in need.

Additionally, the participants stated that women are superior to men in terms of good taste and have a more refined sense of culture. They also indicated that women are very sensitive and delicate and sometimes they seem to be so vulnerable that makes men feel responsible for their protection.

And as far as their interpersonal relations are concerned, people think that a good woman ought to be treated like a princess -- a princess of a man's heart and life. And to that end, a man should strive to provide financial support for his beloved woman and do his best in order to make his woman feel happy and secure.

Dr Timothy Brown
PhD Social Sciences

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Neutral views condition

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Are they fundamentally different?

Are men and women fundamentally different? Do they think and communicate in different ways? Is a lack of understanding between men and women the major reason for the vast majority of conflicts between them?

These and other questions were addressed in a large scale study published this month by the National Institute of Social Research (N.I.S.R) based on more than two thousand participants living in the UK.

According to this survey, people tend to believe that both men and women like keeping fit and healthy. Nevertheless, women prefer to go to the gym, while men prefer to jog or cycle in the park. Moreover, people believe that, in their free time, both men and women enjoy reading a good novel and watching a film on TV.

In terms of their favourite hobbies, the participants stated that men love going camping, cooking and collecting football cards or stamps. Women, on the other hand, enjoy performing arts (e.g., acting, singing), playing sports and shopping.

With regard to men and women's favourite food, participants suggested that, while men prefer eating meat and chocolate, women love pasta and strawberries.

And as far as their interpersonal relations are concerned, responses to the survey suggested that both men and women value friendship and that both sexes consider honesty and respect as the most important ingredients for a successful relationship.

Dr Timothy Brown
PhD Social Sciences

People believe that both men and women value friendship and that both sexes consider honesty and respect as the most important ingredients for a successful relationship.

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Appendix 3 (Experiment 6)

Sexism Type manipulation

Hostile sexism condition

Below is a page from a newspaper. Please read the article with the headline "Are they fundamentally different?".

built your organization's identity among peers, members, employees or vendors.

Greg Prince
MSc Management

Surgeons. Also of note is that the Gibbon is represented as twice that of its natural size in nature.

Bill Coughlin
MSc Sociology

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Additionally, the participants stated that women tend to interpret everything as being sexist, to exaggerate problems they might encounter at work, and even if they lose fair and square in settings such as getting a job or being promoted, women attribute their lack of performance to social discrimination and sexism.

And as far as their interpersonal relations are concerned, people think that women do not seem to appreciate what men do for them. Moreover, responses to the survey suggested that for women commitment means "keeping their mate under control" and so they tend to use men in accordance with their own wishes and to ignore men's needs and their feelings.

Dr Timothy Brown
PhD Social Sciences

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Appendix 4 (Experiment 6)

Announcement

Towards gender equality in political representation

The Gender-Related Issues Programme (Cardiff) would like to draw your attention to the following: “Gender equality is a fundamental right and value of the European Union. Despite this, there is a persistent under-representation of women in politics throughout Europe. According to the European Commission’s Annual Report on the proportions of women and men in key political decision-making positions¹, 36% of Members of the European Parliament (MEPs) are women and 64% are men. In the United Kingdom the situation is even more discouraging: 23% of Members of Parliament (MPs) are women and 77% are men. Within the European Union only Sweden and Finland have more than 40% women in parliament. Other countries have a long way to go to achieve even this goal”.

Our Programme’s commitment is not only to raise awareness about gender equality issues but also to take action to have equal representation of women and men in parliament. To this end, we have decided to engage in a series of protest actions in favour of equal representation of women and men in key political decision-making positions. Women are as competent and efficient as men in taking on responsibilities and there is no good reason for them to be under-represented in politics. We aim to launch our activities with a meeting to be held in the coming month in a central Cardiff location (place, date and time TBA). Your attendance at this meeting would make a valuable contribution to our cause.

¹(based on data from a database established by the European Commission, last update: 30/07/2013)