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Citation: Shepherd, Lee, Fasoli, Fabio, Pereira, Andrea and Branscombe, Nyla (2018) The Role of Threat, Emotions, and Prejudice in Promoting Collective Action Against Immigrant Groups. *European Journal of Social Psychology*, 48 (4). pp. 447-459. ISSN 0046-2772

Published by: Wiley-Blackwell

URL: <https://doi.org/10.1002/ejsp.2346> <<https://doi.org/10.1002/ejsp.2346>>

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**The Role of Threat, Emotions, and Prejudice in  
Promoting Collective Action Against Immigrant Groups**

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Word count: 6,633

*Author note:* This project was developed at the 2010 European Association of Social Psychology Summer School in Greece. The authors thank Adela Fofiu, Katherine Reynolds, and Machos Iatridis for their contribution to this research. Correspondence should be addressed to Lee Shepherd, Department of Psychology, Life Sciences, Northumbria University, Newcastle-upon-Tyne, NE1 8ST, UK. Telephone number +44(0)191 227 3931. Electronic mail may be sent to [Lee.Shepherd@northumbria.ac.uk](mailto:Lee.Shepherd@northumbria.ac.uk). The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. The data for these studies has been archived at Northumbria University by the corresponding author.

### **Abstract**

In two studies we assessed the role of distinctiveness threat, group-based emotions (angst, fear and anger), and prejudice on people's willingness to engage in collective action against immigrant groups. In Study 1 ( $N = 222$ ) White British participants were either informed that in the next 40 years the proportion of immigrants in the UK is unlikely to change (control condition) or that there will be more immigrants than White British people living in Britain (threat condition). We obtained support for a sequential multiple mediator model in which threat predicted British people's willingness to engage in collective action via the emotions first and then prejudice. This finding was replicated in Study 2 with an Italian sample ( $N = 283$ ). These results enhance understanding of when and why advantaged groups undertake collective action against disadvantaged groups by demonstrating that distinctiveness threats and emotions promote such actions.

*Keywords:* threat; angst; fear; anger; prejudice; collective action

## **The Role of Threat, Emotions, and Prejudice in Promoting Collective Action Against Immigrant Groups**

Collective action is often regarded as a strategy used to improve or protect the rights of disadvantaged groups (Subasic, Reynolds, & Turner, 2008). However, there are numerous examples of people undertaking collective action in an attempt to reduce the rights and resources of disadvantaged groups. For example, during the struggle for Black civil rights in the U.S., numerous white supremacy groups formed to violently oppose this movement. To date, only a small number of studies have assessed the likelihood of advantaged groups engaging in collective action (Van Zomeren, Postmes, & Spears, 2008), with the majority of these focusing on the role of emotion in motivating advantaged groups to undertake collective action to *help* disadvantaged groups (Stewart, Latu, Branscombe, & Denney, 2010). In contrast, our research enhances the collective action literature by assessing the factors that predict advantaged group members' willingness to undertake collective action *against* disadvantaged groups.

Social identity theory (Tajfel & Turner, 1979) postulates that advantaged group members are motivated to maintain their distinct and prestigious social identity in order to gain collective esteem. However, disadvantaged groups can threaten the advantaged group's distinct and prestigious social identity (for a review, see Jetten, Spears, & Postmes, 2004). Such threats are likely to increase prejudice toward disadvantaged groups (Esses, Medianu, & Lawson, 2013; Stephan, Renfro, Esses, Stephan, & Martin, 2005) and result in advantaged group members experiencing a variety of aversive emotions (Outten, Schmitt, Miller, & Garcia, 2012; Wohl & Branscombe, 2009). However, there has been little research assessing the extent to which these factors motivate advantaged groups to undertake collective action against the disadvantaged group. We therefore enhance this research literature by assessing the role of such threats, aversive emotions (angst, fear and anger), *and* prejudice in

motivating advantaged groups to undertake collective action against disadvantaged groups. Moreover, we investigate both the direct effects and the indirect effects of such threats on collective action via the emotions first and then prejudice.

### **Effect of Emotions on Collective Action**

Advantaged groups may feel a variety of emotions relating to their position in the social hierarchy, including pride, sympathy and guilt (Harth, Kessler, & Leach, 2008; Leach, Snider, & Iyer, 2002). Threats to the advantaged group's social identity can elicit numerous aversive emotions, depending on the appraisal of the intergroup situation (Smith, 1993). Appraising such threats as illegitimate is likely to result in group-based anger (Gordijn, Wigboldus, & Yzerbyt, 2001). This anger can be felt toward both powerful advantaged (Mackie, Devos, & Smith, 2000) and less powerful disadvantaged groups (e.g., Leach, Iyer, & Pedersen, 2006). Group members may also experience anxiety-based emotions when faced with a social identity threat. Group-based fear may be elicited when group members feel unable to cope with a threat (Dumont, Yzerbyt, Wigboldus, & Gordijn, 2003; Kuppens & Yzerbyt, 2012). People also feel collective angst when they believe the existence of their group is threatened (Jetten & Wohl, 2012; Wohl & Branscombe, 2009). Although angst is closely related to fear, these emotions have been found to be distinct (Wohl, Branscombe, & Reysen, 2010; Wohl, Giguère, Branscombe, & McVicar, 2011). Fear is associated with a current threat or certain danger to one's group (Kamans, Otten, & Gordijn, 2011; Kuppens & Yzerbyt, 2012), while angst stems from the possibility that one's group may not exist at some point in the future (Wohl & Branscombe, 2009).

Each of these emotions has been found to predict behavior. Numerous studies have found that anger motivates people to undertake collective action designed to overcome the threat or illegitimacy (Livingstone, Spears, Manstead, & Bruder, 2009; Van Zomeren, Spears, Fischer, & Leach, 2004). Fear is associated with avoidant action tendencies and is believed to

reduce the likelihood of confronting the threatening group (Kamans et al., 2011; Kuppens & Yzerbyt, 2012; Miller, Cronin, Garcia, & Branscombe, 2009). However, research suggests that fear *may* increase people's willingness to undertake collective action when this action is likely to resolve the potential threat (Van Zomeren, Spears, & Leach, 2010). Fear may therefore promote collective action designed to overcome a perceived threat. Angst motivates group members to undertake actions aimed at ensuring the group will continue to exist in the future (Jetten & Wohl, 2012; Wohl et al., 2010, 2011). For example, feeling angst as a result of remembering the Holocaust resulted in Jewish participants endorsing behavior to enhance their group by planning to donate money to Jewish organizations, wanting one's children to be sent to a Jewish school and for them to be taught Jewish history and culture, and planning to marry someone who was Jewish (Wohl et al., 2010). Such actions strengthen Jewish people's culture and traditions, helping to ensure that the group exists in the future.

Although group-based anger and fear have been found to predict collective action (Leach et al., 2006; Van Zomeren et al., 2010), the literature has generally focused on collective action that aims to increase the rights of disadvantaged groups (Subasic et al., 2008). To our knowledge, no research has assessed the role of these emotions in motivating advantaged groups to undertake collective action against disadvantaged groups. Moreover, although research has assessed the role of angst in promoting actions that ensure the group exists in the future (e.g., wanting to marrying inside one's group), there has been little work assessing whether experiencing angst motivates advantaged groups to undertake collective action against disadvantaged groups. Engaging in collective action against a disadvantaged group is likely to strengthen the advantaged group's position, thereby helping to ensure the group exists in the future. As such, this form of collective action may be used by advantaged groups to maintain their position in the social hierarchy. Therefore, the first aim of the

present study was to assess the role of these emotions in motivating advantaged groups to undertake collective action against disadvantaged groups.

### **Indirect Effect of Emotions on Collective Action via Prejudice**

Generally, intergroup emotion research has assessed the role of emotions on behavior without taking prejudice into account (for exceptions, see Esses et al., 2013; Leach et al., 2006). This may, in part, be driven by intergroup emotion theory (Smith, 1993) stipulating that the interpretation of the situation and the specific emotion that stems from it may be a better predictor of action than the level of prejudice felt toward a group. However, research suggests that social identity threat promotes prejudice (Branscombe, Ellemers, Spears, & Doosje, 1999; Branscombe & Wann, 1994; Stephan et al., 2005), especially when the disadvantaged group is blamed (or scapegoated) for this threat (Glick, 2002). It is therefore important to consider the interplay between emotions and prejudice.

Although the vast majority of intergroup emotion research has focused on the effect of emotions on behavior, research suggests that emotions also shape perceptions of one's group (Livingstone, Shepherd, Spears, & Manstead, 2016; Livingstone, Spears, Manstead, Bruder, & Shepherd, 2011). For example, experiencing angst, fear or anger signals that the emotion-eliciting other group may harm, damage or transgress against the advantaged group and such information is likely to signal that this group should not be trusted, thereby increasing prejudice. In line with this, research has suggested that various negative emotions including disgust (Hodson & Costello, 2007), contempt (Esses et al., 2013), anxiety (Kessler et al., 2010; Riek, Mania, & Gaertner, 2006), and anger can increase prejudice (DeSteno, Dasgupta, Bartlett, & Cajdric, 2004). Moreover, research has also found that prejudice increases intergroup competition (Kessler et al., 2010) and reduces willingness to help disadvantaged groups (Jackson & Esses, 2000; Leach et al., 2006). This suggests that prejudice may mediate the effect of threat-relevant emotions on collective action against

disadvantaged groups. Therefore, emotions may have an indirect effect on such forms of collective action via prejudice.

### **Overview of the Current Research**

The aim of this research was to determine the role of distinctiveness threat, emotions (angst, fear and anger) and prejudice in motivating advantaged groups to undertake collective action against disadvantaged groups. Moreover, we assessed the process through which such threat predicts collective action intentions both directly and indirectly via emotions first, and then prejudice. This was assessed in a British (Study 1) and Italian context (Study 2). Our aim was to assess a) whether distinctiveness threat, emotions (fear, angst and anger), and prejudice predict collective action intentions aimed at protecting the advantaged group and b) the indirect effect of distinctiveness threat on collective action via first the emotions and then prejudice.

### **Study 1**

Study 1 investigated British people's willingness to engage in collective action against immigrants. Participants were informed that in 40 years the proportion of immigrants in Britain is likely to stay the same (control condition) or that in 40 years the number of immigrants is likely to be greater than the number of White people (threat condition; for a similar manipulation, see Outten et al., 2012). Participants then indicated the extent to which they felt three emotions (angst, fear, and anger), prejudice towards immigrants, and willingness to engage in collective action against immigrants.

### **Method**

**Participants and Design.** Participants were recruited through a link on an electronic noticeboard that appeared when staff and students logged on to a computer at a university in the UK. Participants took part in the study in exchange for entry into a prize draw. Of the 322 students and staff who started the study, 80 participants were removed for failing to complete

the study. We also removed 20 participants who were not British, did not disclose their ethnicity or were mixed-ethnicity. The final sample consisted of 222 White British participants (91 males, 126 females and 5 undisclosed). The age of participants was 18-68 years ( $M = 32.40$ ,  $SD = 11.05$ ). Each participant was randomly assigned to one of two conditions (control vs. threat). The dependent variables were emotions (angst, fear, and anger), prejudice, and collective action intentions.

**Materials and Procedure.** Participants read information concerning immigrants living in the UK. First, participants were accurately informed that immigrants currently account for 10.8% of the UK population. Next, we manipulated the threat posed by immigrants. Participants in the *control condition* were informed that:

*Research by Professor David Coleman of University of Oxford suggests that this is unlikely to change in the future. His report stated that if current trends continue, in 40 years the proportion of immigrants and British people in the UK will remain the same. British people will account for 87.7% of the population and 12.3% will be immigrants. Professor Coleman concluded by stating that British people will remain a majority in the UK in 2051.*

In the *threat condition* participants were informed that:

*Research by Professor David Coleman of University of Oxford suggests that this is likely to change in the future. His report stated that if current trends continue, in 40 years there may be more immigrants in the UK than British people. British people will account for 48.2% of the population and 51.8% will be immigrants. Professor Coleman concluded by stating that British people may become a minority in the UK by 2051.*

In both conditions the current and future proportion of immigrants to British people was graphically displayed using two pie charts, one for each time period. Participants then completed the following measures in the order presented.

**Collective angst.** The following items adapted from Wohl and Branscombe (2009) were used to measure collective angst: 'I feel concerned that the future vitality of Great Britain is in jeopardy,' 'I feel anxious about the future of British culture,' 'I feel confident that British culture as we know it will survive' (reverse scored) and 'I feel secure about the future of British culture' (reverse scored;  $\alpha = .85$ ). All items were rated on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*).

**Group-based fear.** Participants were asked: "When you think about the number of immigrants in Britain, to what extent do you feel 'worried,' 'afraid,' and 'anxious' ( $\alpha = .93$ )."

All items were rated on a 7-point scale (1 = *not at all*, 7 = *extremely intensely*).

**Group-based anger.** Anger toward the favorable treatment of immigrants was assessed using the following items: "To what extent do you feel 'angry,' 'furious,' 'outraged' at the favorable treatment that immigrants receive in Britain?" ( $\alpha = .97$ ). All items were rated on a 7-point scale (1 = *not at all*, 7 = *extremely intensely*).

**Threat manipulation checks.** The threat that immigrants pose to Britain was assessed using a measure adapted from previous research (González, Verkuyten, Weesie, & Poppe, 2008). This measure assessed the extent to which immigrants pose a threat to the group's identity (i.e., a symbolic threat) and a threat to the advantaged group's resources (i.e., a realistic threat). Symbolic threat was measured using three items: 'British identity is being threatened because there are too many immigrants,' 'British norms and values are being threatened because of the presence of immigrants,' and 'Immigrants are a threat to British culture' ( $\alpha = .95$ ). Realistic threat was assessed using the following three items: 'Because of the presence of immigrants, British people have more difficulties in finding a job,' 'Because of the presence of immigrants, British people have more difficulties in finding a house,' and 'Because of the presence of immigrants, unemployment in Britain will increase' ( $\alpha = .92$ ). All items were rated on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*).

**Prejudice.** Prejudice toward immigrants was assessed using 13-items adapted from previous research (e.g., Akrami, Ekehammar, & Araya, 2000). These items included: ‘Immigrants have become too insistent in their demands for equal rights’, ‘Immigrants are generally not very intelligent,’ and ‘A multicultural Britain would be a good thing’ (reverse scored;  $\alpha = .84$ ). These items were rated on 7-point scales (1 = *strongly disagree*, 7 = *strongly agree*).

**Collective action intentions.** Participants’ willingness to engage in collective action was assessed using the following items (adapted from Iyer, Schmader, & Lickel, 2007): ‘How willing would you be to sign a petition/join a Facebook group/wear a badge/protest/join an email list against improving living conditions for immigrants,’ ‘How willing would you be to go to a meeting of local representatives/convince a friend/recruit others to oppose improving living conditions for immigrants,’ and ‘How willing would you be to vote for a candidate who disagrees with improving living conditions for immigrants?’ All items were rated on a 7-point scale (1 = *not at all willing*, 7 = *extremely willing*). This scale was reliable ( $\alpha = .97$ ).

## Results

An inverse transformation was performed on the collective action intention variable, prior to any data analysis, to correct for univariate outliers<sup>1</sup>.

**Confirmatory Factor Analysis.** Confirmatory factor analysis was used to determine whether the group-based emotions (anger, angst and fear) formed separate constructs<sup>2</sup>. The hypothesized three-factor model did not fit the data well (Table 1). In keeping with previous research using similar scales (Wohl et al., 2010), further analysis revealed that this was due to correlations between the items *within* the collective angst scale<sup>3</sup>. Once the errors between these items were allowed to correlate the model adequately fitted the data. This altered model fit the data significantly better than the three two-factor models or a single factor (Table 1).

We therefore concluded that although these emotions were correlated (Table 2), they were separate constructs.

**The Role of Emotions on Prejudice and Collective Action Intentions.** Symbolic and realistic threats were greater in the threat condition than the control (Table 3), indicating that the threat manipulation was successful. Moreover, people felt more collective angst, fear and anger in the threat than the control condition. There was a non-significant trend for prejudice and collective action intentions to be greater in the threat than in the control condition.

Next, we tested a sequential mediator model in which the effect of threat on collective action intentions was mediated by first the emotions (angst, fear and anger) and then prejudice<sup>4</sup>. This was assessed using path analysis. Path analysis demonstrated that the sequential mediator model fitted the data well:  $\chi^2(2) = 3.09$ ,  $p = .213$ , CFI = 1.00, NFI = 1.00, RMSEA = .05<sup>2</sup>. In this model threat predicted all three emotions (Figure 1), and the emotions indirectly predicted collective action intention via prejudice. None of the emotions had a direct effect on collective action intention, although the pathway from fear was near-significant ( $p = .050$ ). This was contrasted with an alternative model in which prejudice predicted collective action intention via the emotions. In this model threat predicted the emotions directly and indirectly via prejudice. This model did not fit the data well:  $\chi^2(2) = 13.06$ ,  $p = .001$ , CFI = 0.98, NFI = 0.98, RMSEA = .16. Therefore, we concluded that the hypothesized model was superior.

## **Discussion**

We found that threat had an indirect effect on collective action intention via first the emotions (angst, fear and anger) and then prejudice. Believing that immigrants pose a threat to the majority group increased the aversive emotions felt towards this group. These emotions then positively predicted prejudice which in turn predicted collective action intention. This

demonstrates that emotions can have an indirect effect on behavior by shaping people's attitudes toward the disadvantaged group. Although the main findings were in line with our hypotheses, threat did not have a direct effect on collective action intention, which is likely to reflect the fact that people were reluctant to endorse such action tendencies.

In general, the results supported our hypothesis that emotions exert an indirect effect on collective action intention via prejudice. The aim of Study 2 was therefore to test whether these effects would replicate in a different national context. Study 2 also extends Study 1 by assessing the effects of different threats on the hypothesized processes. Previous research has suggested that disadvantaged groups can threaten the advantaged group's identity and culture (symbolic threat) or threaten the resources available to group members (realistic threat; Stephan & Stephan, 1993, 1996). Study 2 aimed to determine whether the hypothesized model is applicable to both symbolic and realistic threats, and assess whether collective action intention in response to each type of threat serves different functions. Study 2 therefore assessed whether the hypothesized model is applicable to collective action intention that serves to address both culture-related (i.e., symbolic) and practical (i.e., realistic) issues.

## Study 2

Study 2 extended Study 1 in several respects. First, this study was conducted with Italian participants to ensure that the effects were generalizable to other contexts. Second, we manipulated realistic *and* symbolic threat independently. Third, we measured people's willingness to engage in culture (e.g., having places to worship) and practical related (e.g., finding a job) forms of collective action.

## Method

**Participants and Design.** A total of 318 participants voluntarily took part in this online study in exchange for entry into a prize draw. Participants were recruited via social networking sites (e.g., Facebook) and emails sent by student assistants to their contacts.

Seven participants were excluded from the analyses because they did not report their nationality or they self-identified as non-Italians. A total of 29 participants were removed for failing to complete the whole study. The final sample consisted of 283 Italian participants (67 males, 213 females and 3 undisclosed). The age range was 18-73 years ( $M = 26.23$ ,  $SD = 8.01$ ). Participants were randomly assigned to one of three threat conditions: control, symbolic threat, or realistic threat. The dependent variables were emotions (anger, fear, and angst), prejudice, and symbolic and realistic collective action intentions.

**Materials and Procedure.** Participants were told that the questionnaire concerned Italians' opinions about immigrants in Italy. In all conditions participants were informed that immigrants currently account for 7.5% of the Italian population. In the *control condition*, participants also read:

*Data by ISTAT and research conducted by the National Observatory on Migration/Immigration Monitoring suggest that this percentage is unlikely to change in the future. These studies stated that if current trends continue, in 40 years the proportion of immigrants and Italians will remain the same. Italians will be the 90.3% while immigrants will be the 9.7% of the Italian population. Given that, these studies conclude that in 2052 Italians will remain the majority in Italy.*

In both the symbolic and realistic threat conditions participants were informed that:

*Data by ISTAT and research conducted by the National Observatory on Migration/Immigration Monitoring suggest that this percentage is likely to change in the future. These studies stated that if current trends continue, in 40 years the percentage of immigrants in Italy will be higher than that of Italians. Italians will be 48.2% and immigrants 51.8% of the Italian population.*

In addition, participants in the symbolic threat condition were informed that:

*Given that, these studies stated that in 2052 the Italian cultural situation will be different from nowadays. Immigrants will have several religious places (e.g., mosques) and cultural associations while now there are mostly catholic churches and associations promoting Italian culture. Moreover, because of that, immigrants' religious and cultural traditions will be more common in everyday life implying that Italians will have difficulties in maintaining the Italian identity and culture intact.*

Participants in the realistic threat condition were told:

*Given that, these studies stated that in 2052 the Italian job market will be different from nowadays. Immigrants will do several jobs that are now mainly done by Italians. Moreover, because of that, immigrants will be present in every economic domain implying that Italians will have more difficulties in finding a job.*

After reading this information, participants completed the following measures in the order presented.

***Emotions, threat, and prejudice.*** The emotions, symbolic and realistic threat, and prejudice items were the same as those used in Study 1, translated into Italian. The advantaged group was changed from 'British' to 'Italians'. Each scale was reliable ( $\alpha = .81$  for angst, .92 for fear, .94 for anger, .94 for symbolic threat, .85 for realistic threat, and .88 for prejudice).

***Symbolic and realistic collective action intentions.*** People rated their willingness to engage in eight collective action behaviors for practical issues (e.g., finding a job, *realistic collective action intention*). As in Study 1, these behaviors included signing a petition, joining a Facebook group, protesting in a public demonstration and voting for a candidate who disagrees with helping immigrants ( $\alpha = .97$ ). All items were rated on a 7-point Likert-type scale (1 = *not at all willing*, 7 = *extremely willing*). Participants also rated eight collective action behavioral intentions for culture-related issues (e.g., having a place to worship,

*symbolic collective action intention*). Participants rated their willingness to engage in the same eight behaviors as above on a 7 point Likert-type scale (1 = *not at all willing*, 7 = *extremely willing*;  $\alpha = .97$ ).

## Results

A square-root and inverse transformation was applied to the measures of symbolic and realistic collective action intention, respectively, to prevent any potential bias caused by outliers on these variables<sup>5</sup>.

**Symbolic and Realistic Threat Manipulation Checks.** The threat manipulation had a significant effect on symbolic threat,  $F(2, 280) = 8.37, p < .001, \eta^2_p = .06$ . Post-hoc Tukey comparisons revealed that perceived symbolic threat was lower in the control ( $M = 2.10, SD = 1.26$ ) than the symbolic ( $M = 2.87, SD = 1.75; p = .006$ ) and the realistic threat conditions ( $M = 3.01, SD = 1.92; p < .001$ ). No significant difference emerged between the symbolic and realistic threat conditions ( $p = .839$ ). By contrast, the threat manipulation did not have a significant effect on the realistic threat measure,  $F(2, 280) = 2.14, p = .120, \eta^2_p = .02$ . We therefore concluded that the threat manipulations successfully manipulated symbolic (but not realistic) threat. Given that there was no significant difference between the symbolic and realistic threat conditions, we combined the two threat conditions (coded control condition = -2 and symbolic and realistic threat conditions = 1). The fact that the manipulation had a significant effect on symbolic but not realistic threats suggests that this recoded threat variable was most likely to assess the effect of a symbolic threat on each of the dependent variables.

**Confirmatory Factor Analysis.** Confirmatory factor analysis was conducted to determine whether anger, fear, and collective angst formed separate constructs<sup>2</sup>. The hypothesized three-factor model – without the within scale correlation between errors – fitted the data well (Table 4). Moreover, this model fitted the data significantly better than the two-

or single-factor solutions. We therefore concluded that although the emotions were correlated (Table 5), they were in fact separate constructs.

**The Role of Emotions on Prejudice and Collective Action Intentions.** The threat manipulation had a significant effect on angst and fear, but not anger (Table 6). Angst and fear were greater in the threat than the control condition. The threat manipulation did not have a significant effect on prejudice. Symbolic collective action intention was significantly greater in the threat than the control condition. By contrast, the threat manipulation did not have a significant effect on realistic collective action intention.

Next, we tested the sequential mediation model using path analysis<sup>2</sup>. This model adequately fitted the data:  $\chi^2(3) = 7.95, p = .047, CFI = 0.99, NFI = .99, RMSEA = .08$ . In line with the ANOVA results, the threat manipulation predicted angst and fear, but not anger. Anger and fear subsequently predicted prejudice (Figure 2). Prejudice then predicted both forms of collective action. In line with Study 1, neither anger nor fear directly predicted either form of collective action intention. These results imply an indirect effect of anger and fear on collective action via prejudice. Although there was a trend for angst to positively predict prejudice, this was not significant ( $p = .066$ ). In contrast to Study 1, angst directly predicted both forms of collective action intention. This model was contrasted with an alternative in which prejudice predicted both forms of collective action intention via the emotions. This model tested whether threat predicted the emotions directly and indirectly via prejudice. This alternative model did not fit the data as well as the hypothesized model:  $\chi^2(4) = 21.55, p < .001, CFI = 0.98, NFI = .97, RMSEA = .13$ . Therefore, we concluded that the hypothesized model was superior.

## Discussion

Study 2 results were consistent with those of Study 1 in finding that threat had an indirect effect on both forms of collective action intention via emotions first and then

prejudice. Indeed, across both studies and both measures of collective action intention (Study 2), there was an indirect effect of threat via emotions. Although angst did not predict prejudice in Study 2, it is worth noting that this relationship was near-significant. In contrast to Study 1, the threat manipulation did not have a significant effect on anger. This may have occurred because participants were told how the rise in immigrants may have a detrimental effect on advantaged group members, thereby making anxiety-based emotions more prominent.

### **General Discussion**

The aim of this research was to assess factors that motivate advantaged groups to undertake collective action against disadvantaged groups. In both studies we found that threat exerted an indirect effect on collective action intention via emotion(s) and then prejudice. In Study 1 we found this indirect effect occurred through all three emotions (angst, fear and anger). Moreover, all three emotions predicted collective action indirectly (but not directly) via prejudice. Although the results from Study 2 are not perfectly consistent with the results from Study 1, most effects do replicate. We replicated the indirect effect from threat to collective action via first fear and then prejudice. Although in Study 2 threat did not predict anger, we did replicate Study 1 in finding an indirect effect from anger to collective action via prejudice. The main discrepancy was that in Study 2 (but not Study 1) angst predicted collective action directly, but not indirectly via prejudice. However, it should be noted the relationship between angst and prejudice was near-significant. Importantly, in line with Study 1, neither anger nor fear directly predicted collective action. This suggests that emotions have an indirect effect on collective action intention via increases in prejudice.

This research extends existing findings in numerous ways. First, previous research focused on the use of collective action to increase the rights of disadvantaged groups (for an overview, see Subasic et al., 2008). However, in the present research we demonstrate that

people may be willing to engage in collective action to reduce the rights of disadvantaged groups. Second, whereas previous research assessed the role of positive factors (e.g., relative gratification and pride) in motivating advantaged groups to take action against disadvantaged groups (Harth et al., 2008; Mols & Jetten, 2015; Postmes & Smith, 2009), we have demonstrated that negative emotions also promote such actions. For both relative gratification and threat, the anxiety surrounding the advantaged group's precarious position promotes action against the disadvantaged group. Third, previous research suggested that anxiety-based emotions are likely to produce avoidant (Miller et al., 2009) or intra-group behaviors (e.g., supporting organizations that promote the advantaged group; Wohl et al., 2010, 2011). By contrast, we demonstrated that collective angst and fear can promote confrontational intergroup behavioral intentions (i.e., collective action). Fourth, we extended current research assessing the role of emotions on prejudice (e.g., Hodson & Costello, 2007; Riek et al., 2006), by demonstrating the role of angst, fear, and anger in increasing prejudice toward a disadvantaged group and that this, in turn, promotes collective action intention.

Intergroup emotion theory (Smith, 1993) claims that simply having a prejudiced attitude toward a group is insufficient to differentiate between the distinct types of behavior that is undertaken by group members. This perspective suggests that researchers should focus on the group-based emotions that are experienced because they are a stronger and more proximate predictor of behavior than prejudice. By contrast, our results suggest that emotions may predict collective action intention indirectly via prejudice, thereby suggesting that prejudice is more likely to predict behavioral intentions (i.e., collective action intention) than the emotions. As such, it could be argued that our research is in opposition to intergroup emotion theory. However, we suggest instead that our approach represents an extension of intergroup emotion theory rather than a competing hypothesis. We suggest that how emotions and prejudice are related to behavior may vary depending on the nature of the emotion. For

non-threatening emotions (e.g., sympathy, pride, and contempt), we argue that emotions may be strong predictors of behavior. However, threatening emotions (e.g., angst, fear, and anger) are likely to signal that a group should not be trusted. As a result, threatening emotions may predict behavior both directly and indirectly via prejudice. In this study we tested the extent to which emotions predicted behavior directly and indirectly via prejudice. However, we did not compare the direct and indirect effects of non-threatening and threatening emotions on behavior. Therefore, further research is needed in this area to test these ideas.

Aversive emotions can increase mistrust and be detrimental for reconciliation or compromising efforts (Nadler & Liviatan, 2006). The key to successful reconciliation entails alleviating the initial threat that groups perceive themselves to be facing (Shnabel & Nadler, 2008). Therefore, in order to successfully achieve intergroup compromise, the initial threat should be addressed first. The use of this emotion-focused reappraisal strategy may ensure the needs of the group are met without further escalation of the conflict. Although such increase in prejudice is not functional for improving the intergroup relationship, it may be functional for the threatened advantaged group by serving to legitimize any derogatory actions that a group commits against the threatening disadvantaged group in the future. By legitimizing such actions, group members can undertake harmful actions toward the disadvantaged group without damaging their moral image or resulting in any guilt for the consequences (Branscombe & Miron, 2004). Indeed, a parallel can be drawn from the use of propaganda to dehumanize groups prior to a transgression being undertaken (Bar-Tal, 1990; Staub, 1989). Increasing prejudice may be, in effect, a preemptive strategy for avoiding the negative consequences of committing harm before any actions are undertaken against the disadvantaged group.

It is also important to consider limitations of our research. First, it is interesting to note that while the collective angst measure was future-oriented, the fear and anger measures

were related to the present. It could be argued that this discrepancy might account for the future-oriented threat manipulation having a greater effect on angst than fear or anger. However, although this manipulation had the strongest effect on angst in Study 1, the effect size for angst and fear were not different in Study 2. Future research should shed light on these mixed results. Second, it could be argued that prejudice may be a consequence of collective action against the disadvantaged group, thereby creating a reverse causal pathway (i.e., emotions promote collective action intention which then increases prejudice; for a discussion, see Greitemeyer & McLatchie, 2011). However, previous research has suggested that the relationships between emotions, prejudice and behavior are likely to be bi-directional (Kessler et al., 2010), suggesting this may well be an additional process rather than a competing model. Third, in these studies we found that the advantaged group's willingness to engage in collective action against the disadvantaged group was overall low. Indeed, the mean level of collective action intention, as well as prejudice, in Studies 1 and 2 was well below the midpoint of the scale. Nevertheless, despite the low means, we still found that group-based emotions predicted both of these variables. These low means may be because this form of collective action and prejudice are largely associated with right-wing political groups (Duckitt, 2006; Esses et al., 2013), rather than the generally left-wing university-based samples used in these studies. It should be noted that previous research has found that right-wing authoritarianism predicts prejudice indirectly via threat perceptions (Duckitt, 2006). The fact that the current research is consistent with such findings suggests that these effects may be even stronger in right-wing populations. Future research is needed to provide direct support for such effects.

Another limitation is that it could be argued that the threat manipulation in these studies was unrealistic, because it is unlikely that these advantaged groups will lose their majority status. However, in many nations, and especially the UK and Italy, the number of

immigrants is rapidly growing. Indeed, research has suggested that in both the UK and the US the majority White population is likely to become a minority in the future (e.g., Coleman, 2010; US Census Bureau, 2012). Although these conclusions may be questioned, such findings may receive high publicity and be strategically used by political groups (Esses et al., 2013). Therefore, it is important to assess people's reactions to this perceived threat.

Although the manipulation did not directly target essentialism, changes to the demographics of a nation are likely to alter this, potentially promoting prejudice against immigrant groups (Pehrson, Brown, & Zagefka, 2009). Such beliefs may be implied in the changes to the population's demographics. Moreover, Outten et al. (2012) found that such reports can increase anger, fear and prejudice toward immigrant groups. We demonstrate that such changing demographics also increase collective angst and collective action against immigrants.

Believing that one's group may lose its majority status can threaten the advantaged group's position in the social hierarchy. Some researchers have suggested that in such circumstances advantaged group members are likely to discriminate against the disadvantaged group in order to secure their prestigious position (Haslam, 2004). By contrast, others have suggested that such groups are motivated to avoid a status-altering retaliation by the disadvantaged group (Van Knippenberg, 1984), thereby resulting in avoidance of antagonistic actions (Scheepers, Spears, Doosje, & Manstead, 2006). The actions of unstable advantaged groups are likely to depend on a number of factors. Such groups may be more likely to take action against the disadvantaged group when they believe that their position would be lost if they do not act. For example, in the present research inaction would result in the advantaged group losing their majority status, motivating group members to take action against the threatening disadvantaged group in order to protect their prestigious position. Moreover, unstable advantaged groups may be more likely to take action against the

disadvantaged group when they believe that such actions are likely to be effective in alleviating the threat. Finally, unstable advantaged groups may be particularly likely to engage in such actions when the disadvantaged group is blamed (or scapegoated) for the potential loss of their prestigious position (Glick, 2002).

The present studies assessed how threat motivates advantaged groups to undertake collective action against disadvantaged groups via the experience of emotions and increased prejudice. By assessing the role of such negative factors, the current research extends the limited existing work on collective action by advantaged groups. Moreover, our research enhances the emotion literature by demonstrating that collective angst can elevate prejudice and disadvantaged group-directed action tendencies.

### Footnotes

<sup>1</sup> For the emotions, prejudice, and threat manipulation check variables, all scores were within 3.29 standard deviations of the mean, thus suggesting these variables did not contain univariate outliers. However, the collective action intention variable had three scores that were more than 3.29 standard deviations from the mean and thus constituted outliers. After applying an inverse transformation on collective action intention all scores were within 3.29 standard deviations of the mean. Therefore, this transformation dealt with the outliers in the collective action intention measure. We also reanalyzed the data after removing the three outliers on the collective action intention scale. This produced the same results as when the transformed variable was used. There were also some skewed variables in the dataset (fear, anger, and collective action intention). Therefore, we reanalyzed the path model using 95% bias-corrected confidence intervals calculated using 3000 bootstrap resamples. This did not change the significance of the pathways. Therefore, the skew did not bias the results of the model.

<sup>2</sup> This analysis was conducted in AMOS 21 (Arbuckle, 2012). Missing data was imputed using full information maximum likelihood (Arbuckle & Wothke, 1999).

<sup>3</sup> There were high positive correlations between Item 2 ('I feel anxious about the future of British culture') and the reverse scored Item 3 ('I feel secure about the future of British culture'), and Item 3 and Item 4 ('I feel confident that British culture as we know it will survive').

<sup>4</sup> Traditional approaches (e.g., Baron & Kenny, 1986) suggest that mediation can only occur when there is a direct relationship from the independent variable to the dependent (i.e., threat to collective action intention). However, recently researchers (e.g., MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Preacher & Hayes, 2008) have argued that the link from the independent variable to the mediator(s) and the mediator(s) to the dependent

variable are the most important aspects of mediation and that mediation can occur without a direct effect. Given that these relationships were present, it was possible to test for an indirect effect from threat to collective action intention via first the emotions and then prejudice.

<sup>5</sup> There were 10 participants with scores that were beyond 3.29 standard deviations from the mean on the symbolic and/or realistic collective action intention variables and thus constituted univariate outliers. After applying the transformations, these variables did not contain univariate outliers. However, we also checked whether the results were the same when the participants with outlying scores were removed from the dataset. Although there were some significant results that became near significant (i.e., ANOVA of threat to symbolic collective action intention and pathway from angst to realistic collective action intention), in general removing these participants did not alter the significance of the results. There were also some skewed variables (fear and both collective action intention measures). Therefore, we reanalyzed the path model using bootstrapping (for procedure, see Footnote 1). This could only be conducted on participants with full data ( $N = 270$ ). Although the direct pathway from angst to realistic collective action intention became non-significant, the significance of the remaining pathways did not change in the model calculated using bootstrapping. Therefore, the results were not biased by skew.

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**Tables**

Table 1. Confirmatory factor analysis for the emotions, Study 1.

	$\chi^2$	CFI	NFI	RMSEA	$\chi^2_{difference}$
Hypothesized three-factor model	$\chi^2(32) = 166.43, p < .001$	.94	.93	.14	
Adjusted three-factor model	$\chi^2(30) = 83.58, p < .001$	.98	.97	.09	
Combined angst and fear two-factor model	$\chi^2(32) = 189.78, p < .001$	.93	.92	.15	$\chi^2(2) = 106.20, p < .001$
Combined angst and anger two-factor model	$\chi^2(32) = 382.64, p < .001$	.85	.84	.22	$\chi^2(2) = 299.06, p < .001$
Combined fear and anger two-factor model	$\chi^2(32) = 435.00, p < .001$	.83	.82	.24	$\chi^2(2) = 351.42, p < .001$
Single-factor model	$\chi^2(33) = 626.91, p < .001$	.75	.75	.29	$\chi^2(3) = 543.33, p < .001$

Table 2. Means, standard deviations, and intercorrelations, Study 1.

	<i>M (SD)</i>	1	2	3	4	5
1) Collective angst	3.75 (1.35)	-				
2) Fear	2.51 (1.44)	.72***	-			
3) Anger	2.66 (1.63)	.61***	.75***	-		
4) Prejudice	3.15 (0.84)	.63***	.73***	.66***	-	
5) Collective action intention	1.12 (0.24)	.30***	.44***	.41***	.47***	-

\* =  $p < .05$ , \*\* =  $p < .01$ , and \*\*\*  $p < .001$

*Note.* Table includes the transformed collective action intention variable. The mean for the pre-transformed variable was 1.36 ( $SD = 0.90$ ).

Table 3. Effect of threat on manipulation checks and dependent variables, Study 1.

	Control	Threat	F-values
	<i>M (SD)</i>	<i>M (SD)</i>	
Symbolic threat	2.99 (1.62)	3.61 (1.82)	$F(1, 220) = 7.14, p = .008, \eta^2_p = .03$
Realistic threat	3.25 (1.52)	3.73 (1.65)	$F(1, 220) = 5.00, p = .026, \eta^2_p = .02$
Collective angst	3.39 (1.27)	4.13 (1.34)	$F(1, 220) = 17.74, p < .001, \eta^2_p = .08$
Fear	2.22 (1.27)	2.81 (1.54)	$F(1, 220) = 9.97, p = .002, \eta^2_p = .04$
Anger	2.45 (1.57)	2.89 (1.67)	$F(1, 220) = 4.17, p = .042, \eta^2_p = .02$
Prejudice	3.06 (0.83)	3.24 (0.85)	$F(1, 220) = 2.58, p = .109, \eta^2_p = .01$
Collective action intention	1.10 (0.22)	1.15 (0.26)	$F(1, 220) = 2.73, p = .100, \eta^2_p = .01$

*Note.* Table contains the transformed collective action intention variable.

Table 4. Confirmatory factor analysis for the emotions, Study 2.

	$\chi^2$	CFI	NFI	RMSEA	$\chi^2_{difference}$
Hypothesized three-factor model	$\chi^2(32) = 52.95, p = .011$	.99	.98	.05	
Combined angst and fear two-factor model	$\chi^2(34) = 306.78, p < .001$	.87	.86	.17	$\chi^2(2) = 253.83, p < .001$
Combined angst and anger two-factor model	$\chi^2(34) = 411.91, p < .001$	.82	.81	.20	$\chi^2(2) = 358.96, p < .001$
Combined fear and anger two-factor model	$\chi^2(34) = 505.63, p < .001$	.77	.76	.22	$\chi^2(2) = 452.68, p < .001$
Single-factor model	$\chi^2(35) = 784.60, p < .001$	.64	.63	.28	$\chi^2(3) = 731.65, p < .001$

Table 5. Means, standard deviations, and intercorrelations, Study 2.

	<i>M (SD)</i>	1	2	3	4	5	6
1) Collective angst	3.78 (1.52)	-					
2) Fear	2.89 (1.64)	.55***	-				
3) Anger	3.56 (1.87)	.46***	.60***	-			
4) Prejudice	3.21 (1.11)	.48***	.70***	.58***	-		
5) Symbolic collective action intention	1.25 (0.44)	.43***	.47***	.37***	.54***	-	
6) Realistic collective action intention	1.14 (0.27)	.37***	.44***	.38***	.49***	.76***	-

\* =  $p < .05$ , \*\* =  $p < .01$ , and \*\*\*  $p < .001$

*Note.* Table includes the transformed collective action intention variables. The mean for the pre-transformed variables were 1.75 ( $SD = 1.45$ ) for symbolic and 1.49 ( $SD = 1.15$ ) for realistic collective action intention.

Table 6. Effect of threat on the dependent variables, Study 2.

	Control	Threat	F-values
	<i>M (SD)</i>	<i>M (SD)</i>	
Symbolic threat	2.10 (1.26)	2.95 (1.84)	$F(1, 281) = 16.47, p < .001, \eta^2_p = .06$
Realistic threat	2.29 (1.33)	2.68 (1.55)	$F(1, 281) = 4.28, p = .039, \eta^2_p = .02$
Collective angst	3.40 (1.47)	3.98 (1.51)	$F(1, 281) = 9.65, p = .002, \eta^2_p = .03$
Fear	2.49 (1.50)	3.09 (1.68)	$F(1, 281) = 8.70, p = .003, \eta^2_p = .03$
Anger	3.40 (1.90)	3.65 (1.85)	$F(1, 274) = 1.07, p = .303, \eta^2_p < .01$
Prejudice	3.17 (1.06)	3.22 (1.14)	$F(1, 281) = 0.16, p = .695, \eta^2_p < .01$
Symbolic collective action intention	1.17 (0.31)	1.29 (0.49)	$F(1, 276) = 4.69, p = .031, \eta^2_p = .02$
Realistic collective action intention	1.10 (0.22)	1.17 (0.29)	$F(1, 280) = 3.37, p = .067, \eta^2_p = .01$

*Note.* Table contains the transformed collective action intention variables. The differences between the results in the text and this table for symbolic and realistic threat are due to the results in this table being based on the combined threat conditions.

## Figures

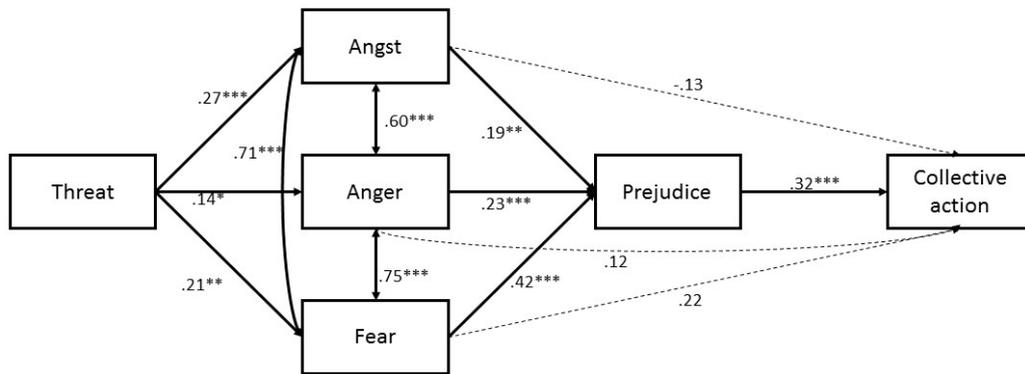


Figure 1. Indirect effect of threat on collective action intention via collective angst and prejudice, Study 1. \* =  $p < .05$ , \*\* =  $p < .01$ , and \*\*\* =  $p < .001$ .

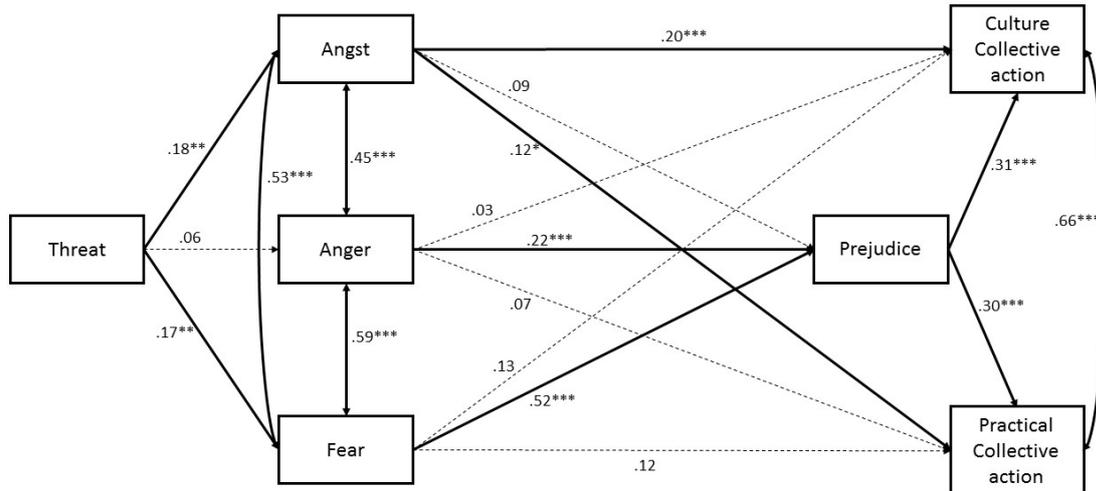


Figure 2. Indirect effect of threat on collective action intention via collective angst and prejudice, Study 2. \* =  $p < .05$ , \*\* =  $p < .01$ , and \*\*\* =  $p < .001$ .