

# Moved by Racial Justice: The Role of Kama muta in Collective Action toward Racial Equity among Advantaged and Disadvantaged Racial Groups

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#### Abstract

The present research investigates the role of kama muta on intentions to participate in collective action to foster racial equity. I considered intergroup dynamics in collective action and included data from both advantaged and disadvantaged racial groups in the context of the Black Lives Matter Movement (BLM). In addition to kama muta, I investigated the role of sadness and anger in collective action. The central hypothesis was that collective efficacy appraisals predict kama muta experiences, and these, in turn, predict motivation to engage in actions that promote racial equity as the shared goal of the movement. Besides, anger and sadness would mediate the relationship between unfairness appraisals and collective action. Two correlational studies tested these predictions. In a preliminary study (pilot, N = 78), I tested a new measure of anger, sadness, and kama muta adapted to the present research context. Results indicated that kama muta toward the BLM movement and sadness toward the system of racial inequalities predict intentions to participate in collective action. In the main study (N = 215), I tested the mediation model in White and Black participants. Results suggest that kama muta toward the movement and anger toward the system of racial inequalities mediate the relationship between both appraisals and collective actions in Black and White participants. Instead, sadness only mediated the relationship between unfairness and collective action intentions in White participants. In conclusion, kama muta contributes to collective action toward racial equity among disadvantaged and advantaged racial groups as a result of both unfairness and collective efficacy appraisals. I discuss the implications of these findings in collective action and intergroup relations research.

Keywords: collective action<sub>1</sub>, intergroup relations<sub>2</sub>, kama muta<sub>3</sub>, social emotions<sub>4</sub>, racial equity<sub>5</sub>

# Author's declaration

I declare that this thesis is an original report of my own research and in my own words, except where supervisors contributed with suggestions. All sources used in researching it are fully acknowledged and referenced. In whole or in part, this thesis has not been submitted by another person or me to obtain any other degree or professional qualification. I understand the ethical implications of my research, and this work meets the requirements of the Department of psychology Research Ethics Committee and guidelines for transparency in psychological research.

Tara vicarazo

Diana Marcela Lizarazo Pereira

Oslo, 30th Of June, 2021

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MOVED BY RACIAL JUSTICE

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"With this faith, we will be able to hew out of the mountain of despair a stone of hope. With this faith, we will be able to transform the jangling discords of our nation into a beautiful symphony of brotherhood. With this faith, we will be able to work together, to pray together, to struggle together, to go to jail together, to stand up for freedom together, knowing that we will be free one day."

Martin Luther King, Jr.

'I have a dream' speech, Lincoln Memorial, August 28, 1963

# Moved by Racial Justice: The Role of Kama muta in Collective Action toward Racial Equity among Advantaged and Disadvantaged Racial Groups

The Black Lives Matter movement has become the largest social movement in the history of the USA (Buchanan, July 3, 2020). In the past year, the unfortunate events of racial discrimination against Black people have had a massive impact worldwide. Regardless of racial identity, people have come together to support the statement that Black lives matter. Black people and other racial-ethnic minorities have raised their voices to condemn the systematic racism that affects them on a daily basis. Meanwhile, White people have stood up in solidarity in the fight for racial justice. This extraordinary social movement is an example of how advantaged and disadvantaged groups can join efforts to act for social change.

Traditionally in social psychology, research has focused on understanding the cognitive and emotional underlying mechanisms that 1) promote social cohesion, and 2) promote collective action as a mechanism to foster social change (Droogendyk et al., 2016; Wright, 2009). Attaining a harmonious and fair society could be achieved through a combination of both perspectives. Nevertheless, fostering social change at the structural level includes understanding the complex dynamics of intergroup relations that can have differential effects in the majority and minority groups (Dovidio et al., 2008)

Promoting effective social change should involve the participation of all members of society, including those who are not directly targeted by injustice. Members of the advantaged group can raise their voices and engage in actions that support the claims of ignored and marginalised groups (Subašić et al., 2008). Therefore, research investigating the support of the advantaged group in social causes is undoubtedly essential to promote social change (Beaton & Deveau, 2005; Craig et al., 2020; Mallett et al., 2008). Furthermore, research on the engagement

of both advantaged and disadvantaged groups could amplify the understanding of the complex dynamics of collective action and intergroup relations.

Investigating emotions could also provide essential insights in this field. Notably, emotions play a pivotal role to motivate or undermine collective action efforts because they influence decision making and action (Jasper, 2011; Montada & Schneider, 1989). Therefore, research on the emotional mechanism underlying collective action may identify emotions that encourage social change. The challenge relies on identifying emotions that influence both advantaged and disadvantaged groups because the emotional process can be different for each one (Iyer & Ryan, 2009).

New perspectives about the role of emotions in the social world bring some insights into how they can motivate action and influence new social categorisations. For example, some authors suggest that emotions can promote new group memberships by creating links among people and fostering a shared understanding of the world (Peters & Kashima, 2007; Thomas et al., 2009b). Furthermore, shared emotions can coordinate social interactions and cooperative behaviour (Thomas et al., 2009a). Thus, shared emotions would have the power to create new social categories while fostering a shared understanding of the world and shaping how individuals take action as a group.

This perspective of the role of emotions has a powerful implication for intergroup relations and collective action theory. In particular, it suggests that emotions shared by both advantaged and disadvantaged group members could be more effective to motivate cooperation and foster intergroup equality (Thomas et al., 2009b). Thus, in this master thesis, I explore the implications of these assumptions on collective action and introduce the Kama muta theory as a

possible theoretical extension of the role of positive social emotions to foster intergroup relations and promote social change.

### Theories of collective action

Collective action is defined as an action taken by a group of individuals to achieve a common goal (Wright et al., 1990). Different behaviours such as participation in demonstrations, signing petitions or donating can be categorised as collective actions (Van Zomeren & Iyer, 2009). However, collective actions can depend on at least three different variables: identity, unfairness, and efficacy. According to the Social Identity Model of Collective Action (SIMCA), social identity predicts collective action directly and indirectly through unfairness perceptions and efficacy beliefs (Van Zomeren et al., 2008). Similarly, the Encapsulated Model of Collective Action (EMSICA) considers injustice and efficacy as predictors of collective action and points out social identification as a mediator in these associations (Thomas et al., 2009a).

A later model distinguishes two different paths for collective action and includes an emotional component explicitly. The dynamic dual-path model (Van Zomeren et al., 2012) suggests that collective action is a strategy disadvantaged groups use to cope with their disadvantage through two approaches. The first one is described as an emotion-focused path and places anger as a critical element. The second path relates to a problem-focused approach characterised by efficacy beliefs. Likewise, a recent extension of SIMCA (van Zomeren et al., 2018) considers the violation of moral beliefs and politicised identity as essential motivation to engage in collective action mediated through group-based anger and group efficacy beliefs, respectively. The models above distinguish between an emotional path mediated by anger and a non-emotional path mediated by efficacy.

However, new models of collective action are challenging this approach suggesting that emotions can be mediators in both paths. For instance, the Social Identity Model of Pro-Environmental Action (SIMPEA) acknowledges that different emotions may be important determinants of goals and actions (Fritsche et al., 2018). Further, some research propose that in addition to the mediator role of anger in the path of unfairness to collective action, the relationship between collective efficacy and collective action is mediated through emotions, suggesting hope (Wlodarczyk et al., 2017) and the feeling of being moved (Landmann & Rohmann, 2020) as mediators.

The previous contributions to collective action research open an exciting discussion about the amplifying role of emotions in different paths to collective action. In addition, it indicates the possible application of this perspective to collective action efforts to support the disadvantaged group. In consequence, below, I describe how to integrate this perspective into the framework of integroup relations.

# **Collective action for Majority and Minority groups**

Members of disadvantaged groups would be more inclined to challenge injustice through collective action (Van Zomeren & Iyer, 2009). Consequently, most research has focused on how people directly affected by injustice take action to overcome it (Craig et al., 2020; Subašić et al., 2008; Van Zomeren & Iyer, 2009). However, some perspectives indicate that members of advantaged groups can also get involved in collective action toward the disadvantaged due to a shared understanding of intergroup relations (Subašić et al., 2008) and closeness and identification with this group (Craig et al., 2020).

Nevertheless, intergroup relations reveal complex dynamics that can encourage or harm collective action. For example, some research suggests that positive contact and identification

with majority group members can discourage the involvement of disadvantaged groups in social change (Saguy et al., 2009; Tausch et al., 2015). Along the same lines, negative contact with advantaged groups is associated with higher support for social change (Hayward et al., 2018; Reimer et al., 2017). Conversely, for advantaged groups, positive contact with disadvantaged group members can predict their involvement in collective action to support them (Reimer et al., 2017) mainly when the disadvantaged group has been targeted for prejudice (Tropp & Uluğ, 2019). These findings suggest that intergroup conflicts may be necessary to make visible social inequalities, recognise them and take actions (Wright, 2009).

# **Politicised collective identity**

Social categorisations classify and organise individuals in groups and enable them to take social actions (Tajfel et al., 1979). A communal identity that emphasises both shared social connections and group differences can promote social change within a society (Dovidio et al., 2000). Nevertheless, it is essential to recognise that advantaged and disadvantaged groups would have a different perspective on this commonality approach. Indeed, majority group members prefer to emphasise commonality, whereas minority groups differences and commonalities (Dovidio et al., 2008).

A shared identification may influence cognitive and emotional processes that lead to collective action. In majority groups, common in-group identities promote collective support toward the disadvantaged group (Beaton & Deveau, 2005). Some research suggests that this shared identification with the minority group may result from understanding how multiple identities of advantaged and disadvantage intersect (Craig et al., 2020; Curtin et al., 2016). Specifically, collective action involvement could depend on the understanding that we can be privileged in some areas but unprivileged in others. Therefore, acknowledging these multiple

identities would facilitate recognising the injustices suffered by another group as their own. This process would encourage a shared understanding of reality and also a shared emotional experience.

Furthermore, shared beliefs and values would also contribute to the participation of advantaged groups. These shared cognitions are determinants of social identity (Swaab et al., 2007) influencing social interactions and action between groups (Tiedens et al., 2004). As a result of those shared beliefs and emotions, it is possible to create connections among people and thus, create new groups (Peters & Kashima, 2007). Correspondingly, according to the Political Solidarity Model of Social Change (Subašić et al., 2008) a shared high order identity meaning based on similar beliefs, norms, and values open the possibility for different groups to come together to achieve a common purpose. Similarly, the Normative Alignment Model (Thomas et al., 2009a) also predicts that similar opinions and norms related to positive social change would allow both advantaged and disadvantaged people to belong to the same social group.

Consequently, they would experience similar emotions and commit to similar behaviours.

Consistent with this argument, the Politicised Identity Theory (Simon & Klandermans, 2001) provides important insights into how advantaged and disadvantaged groups could come together under the same political identity to participate in collective action. This theory suggests that an awareness of shared grievances (identifying illegitimate inequality and violation of principles as part of a group) and adversarial attributions (recognising a common opponent to blame for the group predicament) are essential to acquire a politicised collective identity. Current models of collective action acknowledge this politicised identity as an important predictor of collective action (van Zomeren et al., 2018). In sum, identification with a social movement that

clearly defines a shared violation of principles and a shared opponent provides a baseline for communal identification for different sub-groups and a shared emotional experience.

# Appraisals as predictors of collective action

### **Unfairness**

Identity and perception of justice are necessary predictors of collective action, whether the aim is to change or defend the status quo (Thomas et al., 2020). Particularly, justice beliefs could motivate cognitive interpretations about the world, encourage intentions to make it fairer or even boost behavioural commitment to restore justice (Montada & Schneider, 1989). However, the perception of fairness and involvement in collective action may depend on variables like political identification (Mikołajczak & Becker, 2019). For instance, conservatives are more inclined to preserve the status quo, maintain social hierarchies and are less likely to promote social change than liberals (Becker, 2020).

Awareness of inequalities and understanding of the dynamics of privileges has a relevant role in collective actions that favour the disadvantaged group. For disadvantaged groups, perception and communication about power inequalities and injustice can encourage them to engage in activities to change their situation (Dovidio et al., 2008). Similarly, awareness about privileges in advantaged groups can influence their involvement and support to the disadvantaged (Craig et al., 2020; Droogendyk et al., 2016). For instance, perceiving discrimination toward the disadvantaged group can enhance awareness of privilege and increase motivation to support them (Uluğ & Tropp, 2021). As a result, communication about differences in power among different groups can raise awareness of inequalities and willingness to take action (Tropp et al., 2021).

Accordingly, the Relative Deprivation Theory (RDT) (Walker & Pettigrew, 1984) is widely used to explain the involvement of disadvantaged groups in collective action. RDT proposes that comparison with other groups and the subsequent perception of injustice could result in feelings of group deprivation that motivate collective action. Indeed, meta-analyses have confirmed that relative deprivation that includes justice-related affect predicts collective action (Smith et al., 2012). New approaches extend the relevance of perception of injustice into a broader category of violation of moral beliefs (van Zomeren et al., 2018).

Advantaged groups would participate in supporting the disadvantaged group based on moral beliefs. For example, violation of a moral belief about fairness would evoke emotional reactions such as moral outrage that motivate advantaged group members to act on behalf of the disadvantaged group (Radke et al., 2020). Since morality motivation could overlap with politicised identity (van Zomeren et al., 2018) it can lead to identification with the disadvantaged group (Craig et al., 2020) or with the social movement that represent those beliefs. Consequently, it can influence the collective action of both advantaged and disadvantaged groups.

# Collective efficacy

Initial approaches of efficacy in collective action considered it as a subjective expectation of the effectiveness of the collective action (Klandermans, 1984). Subsequently, however, the role of the group in this process was widely acknowledged. Under the collective lens, group efficacy gives members of a group a sense of agency and empowerment necessary to believe that together they can change their reality (Drury & Reicher, 2005). Consequently, in minority groups, perception of instrumental social support increases the efficacy beliefs necessary to undertake actions to change their circumstances (Van Zomeren et al., 2012). Similarly, for majority groups, perceived resources that include psychological, social and political assets also

predict their participation in collective action (Beaton & Deveau, 2005). Therefore, independently of the group's status, efficacy beliefs are necessary to support a cause.

Furthermore, collective efficacy has a vital role in social identification. Some evidence suggests that collective efficacy would increase group identification by affirming and strengthening it (Van Zomeren et al., 2010). If members of different groups come together for the same purpose, their beliefs about their group efficacy could increase and, thus, their sense of shared identity. The joint participation of advantaged and disadvantaged groups under the same cause could also influence hope that a change is possible. When hope is high, it can influence efficacy beliefs and motivate collective action (Cohen-Chen & Van Zomeren, 2018). This approach suggests that participation of both advantaged and disadvantaged groups under the same cause would enhance collective efficacy beliefs and therefore, also foster shared identity.

### **Emotions as mediators**

In disadvantaged groups, research has focused mainly on the role of anger. However, some research also includes the role of positive emotions. Research on pride suggests that it can predict willingness to participate in collective action; however, group success could be a prerequisite (Tausch & Becker, 2013). Similarly, hope encourages participation in collective action (Cohen-Chen & Van Zomeren, 2018; Wlodarczyk et al., 2017). However, it can undermine the collective action intentions of the disadvantaged group when the aim is to promote harmony between groups (Hasan-Aslih et al., 2019).

In majority groups, guilt has been studied as a relevant mediator of collective action toward the disadvantaged (Mallett et al., 2008; Montada & Schneider, 1989) Even though guilt is an antecedent of helping behaviours, it would be mainly experienced by the majority group.

Alternatively, evidence suggests that positive emotions would also have positive implications on

collective action toward the disadvantaged. For instance, sympathy toward women predicts collective action intentions in men (Iyer & Ryan, 2009). However, sympathy would be mainly experienced in a one-directional relationship maintaining social boundaries (Thomas et al., 2009b). Instead, empathy (being aware of the suffering of another person and experiencing the circumstances with them) would lead to an inclusive in-group categorisation (Thomas et al., 2009b).

Identification with the in-group could lead to a positive evaluation of the in-group (Tajfel et al., 1979) and also promote positive emotional experiences. Some evidence suggests that collective action evokes positive self-directed and negative out-group directed emotions simultaneously (Becker et al., 2011). These out-directed and in-group directed emotions can facilitate a shared emotional experience within members of a group. Subsequently, have implications for social cohesion and collective action. It follows that emotions that both advantaged and disadvantaged groups can recognise and share may be the most effective to direct social and political action (Craig et al., 2020; Thomas et al., 2009a). Therefore, both positive and negative shared emotions can influence the emergence and subsequent strengthening of collective identities (Jasper, 2011).

# Anger and moral outrage

Members of disadvantaged groups would experience anger after perceiving injustice or relative deprivation, which motivates collective action (Van Zomeren et al., 2008; Van Zomeren et al., 2004). This perception of unfairness elicits anger when the unfair situation targets oneself or for whom it has been felt empathic concern (Batson et al., 2007). Therefore, majority groups can also experience this emotion on behalf of the disadvantaged (Iyer & Ryan, 2009; Mallett et al., 2008). Accordingly, identification with the disadvantaged group is associated with high

reported levels of unfairness and anger (Gordijn et al., 2006). Nonetheless, anger can be experienced toward different targets, including the advantaged group (Zhou & Wang, 2012).

Alternatively, moral outrage blames a third party or system of inequality for moral transgressions (Montada & Schneider, 1989). As mentioned previously, blaming a common enemy is a key element of a politicised identity (Simon & Klandermans, 2001). Like anger, moral outrage is also provoked by the perception of unfairness but is mainly elicited under violations of moral values such as justice and fairness. Because this emotion is directed towards an external agent, it can be experienced similarly by both advantaged and disadvantaged group members and this, in turn, would evoke a shared group identity (Thomas et al., 2009b).

# Being Moved

The concept of being moved has definitional issues (Zickfeld, Schubert, Seibt, & Fiske, 2019). Most authors investigate this emotion based on the words used to label this emotional experience; however, these labels are different in each language. These different words can overlap with other emotions depending on language and cultural differences. Indeed, some authors have considered being moved as mixed emotion that correlates with positive and negative affect (Bartsch et al., 2014; Landmann & Rohmann, 2020; Menninghaus et al., 2015) and, therefore, it is also associated with emotions like sadness (Zickfeld, Schubert, Seibt, Blomster, et al., 2019)

A recent research investigated for the first time the role of being moved in collective action. The authors claimed that "people may be moved and positively overwhelmed by the idea that they can collectively change something, and these feelings of being moved may, in turn, motivate collective action" (Landmann & Rohmann, 2020, p.2). Thus, in their research Landmann and Rohmann (2020) challenged the notion that anger would be the only emotion

involved in collective action, proposing a dual emotional path. Remarkably they suggest that collective efficacy as a combination of moral, closeness and achievement appraisals would evoke feelings of being moved. Indeed, their findings suggest that feelings of being moved influence collective action behaviour via the path of collective efficacy, but also via the path of unfairness appraisals.

Offering an integrated framework to conceptualise the experience of being moved, the kama muta theory (Fiske et al., 2017; Fiske et al., 2019) introduces a separate theoretical emotion concept called kama muta. Cross-cultural research suggests that kama muta is a distinctive positive emotion that can trigger a sense of collective identification and motivate affective devotion and moral commitment (Zickfeld, Schubert, Seibt, Blomster, et al., 2019). According to this theory, kama muta (*Sanskrit word for being moved by love*) occurs in response to a sudden intensification of communal sharing relationships. These communal sharing relationships are part of the four fundamental relational models that organise human interactions, including authority ranking, equality matching, and market pricing (Fiske, 1992).

### Kama muta and collective action

Communal sharing relationships are based on something that is shared or common and kama muta seems crucial to create and reinforce these relationships. Different cultural practices evoke kama muta to foster social bonding and strengthen the sense of collective identity (Fiske et al., 2019). Usually, these communal sharing relationships are characterised by feelings of belongingness, equivalence, care, trust, love, affection and associated with kindness, compassion, solidarity and a sense of shared responsibility (Fiske et al., 2019). There is evidence that kama muta could improve intergroup relations by fostering humanisation of outgroup members (Blomster Lyshol et al., 2020), common in-groups identities (Blomster Lyshol, 2019),

and intentions to support people in need (Zickfeld et al., 2017). These findings suggest that advantaged groups might experience kama muta toward disadvantaged groups, which could influence their intentions to participate in collective action that support them. Further, kama muta could also promote a shared communal relationship among advantaged and disadvantaged group members.

Shared values and beliefs can also foster these relationships. Social movements organise their relationships according to communal sharing, enabling them to coordinate cooperative behaviour (Fiske et al., 2019). Hence, social movements based on specific shared values such as fairness and justice among groups could evoke kama muta and reinforce interactions among its members. Some evidence suggests that appraisals of interpersonal closeness and morality predict feelings of being moved (Seibt et al., 2017). For instance, the perception of a sudden intensification of communal sharing by observing or participating in a demonstration or hearing a meaningful speech related to shared values of fairness would evoke kama muta (Fiske, 2019). Subsequently, this emotional experience would also reinforce identification and commitment to the cause.

The positive emotional experiences resulting from perceiving that others share similar values might influence the awareness of their potential to achieve change through collective effort. Consequently, kama muta may foster collective action through reinforcement of collective identity and collective efficacy beliefs. When individuals are involved in the cause, kama muta experiences may promote further engagement and action. For example, evidence suggests that social movements and social activists successfully evoke kama muta to motivate people to participate and act through messages of communal identity and justice (Pierre, 2019). In politics, using kama muta increases the motivation to support and commit to a political cause when there

is partisan communal sharing (Seibt et al., 2019). These findings suggest that kama muta may have the potential to foster support for a social cause and encourage engagement among their members.

Given the above, kama muta can probably influence collective action and foster intergroup relations by creating and reinforcing communal sharing relationships that integrate both advantaged and disadvantaged group members who share the same moral values. This shared identification could promote collective efficacy beliefs, which result in kama muta experiences and subsequent collective action. Hence, this thesis investigates the role of kama muta on collective action, particularly in the involvement of both advantaged and disadvantaged racial groups in collective efforts toward racial equity.

#### The current research

In the current research, I investigate the role of kama muta on collective action intentions toward racial equity. Given that the USA has been the epicentre of massive mobilisations supporting racial equity in the last year, I investigate participation in the Black Lives Matter movement (BLM) in this geographical context. This social movement could provide essential insights into the impact of emotions in intergroup dynamics of collective action. Therefore, the present research contributes to research in social emotions, collective action and intergroup relations in several ways.

First, I extended Landmann and Rohmann (2020) research and elaborated on the difference between being positively and negatively moved. Because it is not possible to identify kama muta based only on the vernacular labels "being moved" (Schubert et al., 2017), I distinguished between kama muta (positive affect) and sadness (negative affect). To do so, I considered the features that characterise both emotions: appraisals, feelings, sensations,

motivations and labels (Coppin & Sander, 2021) and created a new measure adapted to the present research context.

Second, I considered the complex dynamics of intergroup relations and collected data from two groups: Black Americans as the disadvantaged/minority group and White Americans as the advantaged/majority group. Given that understanding the process involved in both groups, is necessary to develop strategies to achieve social change. Therefore, the current research will enhance the understanding of both the disadvantaged and advantaged groups' involvement in supporting racial equity.

Third, I distinguish between the targets of the emotions and, therefore, whether the emotions are out-directed or self-directed (Becker et al., 2011). The emotions assessed in this study were targeted to different social categories (in-group and out-groups). Those categories included Black and White people as possible in-groups and out-groups. In addition, the emotions toward the BLM movement and toward the system of racial inequalities (systematic racism) as a possible in-group and an out-group category for all participants. Therefore, I tested the influence of anger, sadness and kama muta toward those targets assuming that both White and Black participants can share similar emotions.

Finally, I contribute to the research that challenges the notion that collective efficacy leads to a non-emotional path of collective action (Landmann & Rohmann, 2020; Wlodarczyk et al., 2017) investigating the hypothesis that kama muta mediates this relationship. I hypothesized that H1.a) Collective efficacy appraisals are positively associated with collective action intentions toward racial equity, H1.b) Kama muta toward the BLM movement is positively associated with collective action intentions toward racial equity and H1.c) Kama muta toward the BLM movement mediates the relationship between collective efficacy and collective action

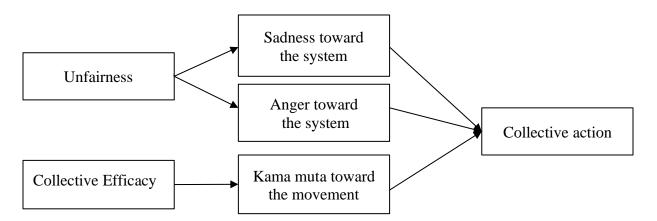
intentions. Additional hypotheses, including the role of anger and sadness, were also included (*See figure* 1).

Given the above, in a preliminary study, I tested the new measure for the three emotions assessing the emotional experience toward different targets and analysed its association with collective action. In the main study, I further investigated the role of the three emotions toward the BLM movement and the system of racial inequalities and tested the emotions as mediators in the relationship between appraisals and collective action intentions toward racial equity.

The internal review board at the department of psychology, University of Oslo approved the studies. Informed consent was obtained from all participants. Finally, following guidelines of research integrity in psychological research (Cumming, 2014), the main study was pre-registered (*See https://aspredicted.org/pd2w3.pdf*), and all data exclusion, manipulations, anonymised data, pre-registration and questionnaires are stored and can be consulted in an OSF project (*See* https://osf.io/aqmxh).

Figure 1

The mediation model with three paths to collective action



# **Preliminary study**

In the preliminary study, I piloted a new measure of emotions and obtained the first exploratory data of the emotions and their association to collective action. Appraisals were not measured in this preliminary study. I targeted the measure toward the Black Lives Matter Movement, the system of racial inequalities, Black and White people. I explored the associations between the emotions towards each target and their relationship with collective action.

### Method

# **Participants**

I recruited N = 100 participants from Academic Prolific requesting US Americans. Participants were compensated with 1.25 GBP for their time. I excluded participants who failed 1 or 2 attention checks or did not complete the survey (N = 22). The remaining 78 participants reported age varying from 19 to 69 (M = 34.74, SD = 11.78); 32 reported being female, 45 male and 1 third gender. Regarding ethnicity, 64.1% reported being white and the 35.9% remaining mentioned being members of ethnic minorities (Black n = 7, Asian n = 13, Hispanic n = 5, Other n = 3). Participants indicated their political ideology on a scale from 1 ("left") to 10 ("right"); the average value was M = 4.60, SD = 2.73, 64.1% reported values between 1 to 5. Thus, the sample was skewed towards leaning politically left, and there were not many Black participants.

#### Procedure

Each participant was presented with a survey delivered online through Qualtrics.com. All participants had to complete the same questionnaire and were asked to respond to the measures described below. Data analysis was performed using SPSS statistics version 26.

#### Materials

**Emotions.** The emotional experience in the past year was assessed through a questionnaire designed for this research. We presented participants with the descriptions of three emotions: sadness, anger, and kama muta. Descriptions contained detailed information about the valence, appraisals, physical reactions and labels that characterise each one of those emotions. Here is the example of the description that was used to measure kama muta:

"This emotion gives you a positive feeling, and it makes you feel connected to others. Perhaps you have felt this emotion after experiencing a sudden sense of closeness to somebody else or an incredibly strong bond with another person or a group of people. When this emotion is mild, it feels a little warm and fuzzy. When it is more intense, you may notice warmth or a stirring in the centre of the chest; your eyes may tear up, or you actually weep. Some people experience chills or goosebumps. You would probably call this as being touched or moved, and you would perhaps call the situation heart-warming"

After each description, participants indicated their emotional experiences through four items measuring the frequency ("How often did you feel this emotion toward the (target) during the past year?"), intensity ("During the past year, how strongly did you typically experience this emotion toward the (target)?", salience ("During the last year, how present was this emotion in your life, toward the (target)?"), and ease of retrieval ("How easily do situations from the last year come to your mind where you felt this emotion toward the (target)?"). The above items were used to measure each emotion toward each of the four targets: the system of racial inequalities, the Black Lives Matter Movement, and White and Black people. Items were answered on 5-point Likert scales ranging from 1 *not at all/Never* to 5 *very much/always*. In

total, I assessed each target with four items for each one of the three emotions in a 4 x 4 x 3 design. (See appendix A for an overview of the full measure.)

Collective action. At the end of the questionnaire, participants reported their intentions to participate in collective action toward racial equity on a 5-point Likert scale ranging from 1 strongly disagree to 5 strongly agree. The seven items were adapted from Landmann and Rohmann (2020) and included: "I would/participate in a demonstration against racism, participate in a protest for racial equality, volunteer in an organisation to fight racism, convince others to engage in racial equality discussions, sign petitions to stop racism, donate to a charity which supports Black people, join a campaign online to share information supporting racial equality".

#### **Results**

# Reliability

The four items for each emotion and target were analysed for reliability. The scales were found to be highly reliable for all targets and emotions. Subsequently, I averaged the items for each emotion and target and created composite variables. Reliability values and descriptive information for the scales are presented in Table 1.

A principal component analysis was used to identify the underlying components of the collective action measure. Preliminary analyses indicated that there was a sufficient number of significant correlations among the items to merit a principal component analysis, with a Kaiser-Meyer-Olkin Value of .85 and a statistically significant result for Barlett's test,  $\chi^2(21) = 529.91$ , p < .001. Only one component with eigenvalues greater than 1 was extracted. This component explained 73.92% of the variance. Therefore, I decided to average all items of collective action intentions into one measure.

**Table 1**Reliability values for each scale

| Scale               | α   | M    | SD   |  |
|---------------------|-----|------|------|--|
| Anger to System     | .91 | 3.08 | 1.09 |  |
| Anger to BLM        | .95 | 2.31 | 1.24 |  |
| Anger to Black      | .95 | 1.87 | 1.03 |  |
| Anger to White      | .92 | 2.60 | 1.07 |  |
| Kama muta to System | .96 | 1.75 | 1.03 |  |
| Kama muta to BLM    | .95 | 2.48 | 1.21 |  |
| Kama muta to Black  | .93 | 2.91 | 1.01 |  |
| Kama muta to White  | .93 | 2.60 | 1.06 |  |
| Sadness to System   | .96 | 3.27 | 1.25 |  |
| Sadness to BLM      | .93 | 2.31 | 1.09 |  |
| Sadness to Black    | .93 | 2.32 | 1.07 |  |
| Sadness to White    | .94 | 2.57 | 1.12 |  |
| Collective action   | .94 | 3.54 | 1.18 |  |

# Emotions toward different targets

To investigate the differences between emotional reactions to different targets, I conducted an ANOVA with the target (system vs. movement vs. Black people vs. White people) and emotion (anger vs. kama muta vs. sadness) as within-participant factors. Mauchly's test indicated a violation of sphericity assumption  $\chi^2$  (20) = 117.92, p < .001. Since sphericity was violated ( $\varepsilon$  = 0.660), Greenhouse-Geisser-corrected results are reported. Results indicate that there is no overall difference between emotions  $F(1.88, 144.66) = 2.367, p = .101, \eta^2 = .03$ . However, there are differences between targets irrespective of the emotions  $F(2.53, 194.80) = 6.500, p = .001, \eta^2 = .07$ . Finally, the emotions and target factors interacted significantly  $F(3.96, 304.92) = 29.79, p < .001, \eta^2 = .28$ . These findings suggest that emotions differ depending on the targets (see Table 2). The system of racial inequalities elicited the highest levels of anger and sadness, while Black and White people elicited the highest levels of kama muta.

 Table 2

 Average levels of the emotions towards the four targets in the pilot study

|           | System            | Movement          | Black             | White             |
|-----------|-------------------|-------------------|-------------------|-------------------|
| Anger     | 3.08 [2.84; 3.33] | 2.31 [2.03; 2.59] | 1.86 [1.63; 2.10] | 2.60 [2.36; 2.84] |
| Kama Muta | 1.75 [1.51; 1.98] | 2.48 [2.21; 2.75] | 2.90 [2.68; 3.14] | 2.56 [2.37; 2.83] |
| Sadness   | 3.27 [2.99; 3.55] | 2.31 [2.07; 2.56] | 2.32 [2.08; 2.56] | 2.58 [2.31; 2.82] |

Note: Means and 95% confidence intervals.

# Regression analysis

In order to explore the association between the emotional scales and collective action, I calculated a multiple linear regression. The model was run as a stepwise regression with the default settings in SPSS, which includes predictors with p < .05 and excludes them with p > .10 iteratively. Additionally, I examined whether ethnicity could have an impact on the model and split the sample into White and non-White participants based on their reported ethnic identification. The scatter plot and histogram showed that the data met the homogeneity of variance and linearity assumptions, and residuals were approximately normally distributed. Table 3 summarises the variables that significantly predicted collective action.

**Table 3**Summary stepwise regressions preliminary study

|                        | Total sample |          | White Participants ( $n = 50$ ) |       | Non-White Participants ( $n = 28$ ) |       |       |           |       |
|------------------------|--------------|----------|---------------------------------|-------|-------------------------------------|-------|-------|-----------|-------|
|                        | $R^2$        | p        | F                               | $R^2$ | P                                   | F     | $R^2$ | p         | F     |
|                        | 62.3         | <.001    | 40.70                           | 67.2  | <.001                               | 31.48 | 54.1  | <.001     | 14.72 |
| Predictor              | В            | CI       | p                               | В     | CI                                  | p     | В     | CI        | p     |
| Kama muta to<br>BLM    | .67          | [.51,83] | <.001                           | .66   | [.46, 87]                           | <.001 | .57   | [.33, 80] | <.001 |
| Sadness to system      | .34          | [.20,48] | <.001                           | .32   | [.13, 51]                           | <.001 | .29   | [.05, 53] | .020  |
| Kama muta to<br>Blacks | 20           | [40,00]  | <.001                           |       |                                     |       |       |           |       |
| Kama muta to<br>Whites |              |          |                                 | 26    | [46,05]                             | .016  |       |           |       |

Note: 95% confidence intervals

### **Discussion**

This preliminary study aimed to pilot a new measure of emotions and carry out exploratory analysis of the association of those emotions and collective action intentions. These findings indicate that the measure designed for the current research context satisfactorily differentiated the emotions for each target. The results of exploratory regression analysis revealed that kama muta toward the movement significantly increased collective actions toward racial equity, followed by sadness toward the system of racial inequalities in the total sample and for each sub-group.

The present results contrast with theory in collective action because anger was not a predictor. Instead, sadness towards the system of racial inequalities was a predictor. Note, however, that the sample was small, and predictors correlated to some degree. The failure to find a significant effect of anger should thus not be overinterpreted.

In summary, these findings suggest that kama muta might play a role in collective action intentions toward racial equity when it is felt toward the movement. Furthermore, they indicate that sadness toward the system of racial inequalities also may play an important role in collective action. Therefore, I include it in the main study. Although anger did not play a role as a predictor of collective action in the present study, I also included it as a variable in the main study, given the strong findings in earlier research. Therefore, I proceed to measure kama muta, anger and sadness toward the BLM movement and the system of racial inequalities as mediators in the relationship between appraisals and collective action using the same measure implemented in this preliminary study.

# Main study

The aim of the main study was to build a mediation model to explain the relations between appraisals and collective action intention toward racial equity through the three emotions. To test that model, I surveyed only White and Black Americans. Specifically, I hypothesised that H1) Kama muta toward the BLM movement mediates the relationship between collective efficacy and collective action; H2) Anger toward the system of racial inequalities mediates the relationship between injustice appraisals and collective action intentions and H3) Sadness toward the system of racial inequalities mediates the relationship between unfairness appraisal and collective action (see Figure 1). In addition, I investigated whether the model differs for White and Black participants. Finally, I explored associations between additional variables that may influence collective action intentions in the present inter-group research context.

#### Method

# **Participants**

I recruited N = 306 participants from Academic Prolific requesting US Black and White Americans. Participants were compensated with 1.25 GBP for their time. I aimed to have data from 150 Black/African Americans and 150 White Americans. However, as pre-registered, participants were excluded from the primary analysis if their response time exceeded 3 SD (N = 7) and failed one (N = 80) or two (N = 3) attention checks. Therefore, the final total sample size for the main analysis was N = 215. The high failure rate on one of the attention checks was probably due to it being placed in the measure of kama muta toward the system of inequality, where people may have easily overlooked it. I nevertheless proceeded with the pre-registered criteria.

White participants (N = 107) reported age varying from 18 to 70 (M = 34.57, SD = 12.69); 41 reported being male, 62 female and 4 third gender. Participants indicated their political ideology on a scale from 1 ("left") to 10 ("right"); the average value was M = 3.40 (SD = 2.60). 84.1% reported at least some college education. Black participants (N = 108) reported age varying from 18 to 68 (M = 35.40, SD = 11.71), 57 reported being male and 51 female. The average value of ideology was 4.31 (SD = 2.49), and 84.3% reported some college education.

#### Procedure

Each participant had to answer a survey delivered online through Qualtrics.com. All participants completed the same questionnaire and answered the measures described below. Participants indicated to what extent they agreed with a set of statements on collective efficacy and unfairness, their emotional ratings toward two targets: the system of racial inequalities and the BLM movement, and their intentions to participate in collective action. Furthermore, they reported ratings of attitudes, contact and identification with various targets.

### Materials

Appraisals. Appraisals were adapted from Landmann and Rohmann (2020). Collective efficacy appraisals were assessed through three items on a 5-point Likert scale from 1 *not at all to 5 completely;* "I feel that together people can reduce racial inequality; I believe that together people can stop unfairness toward Black people; People can together, through joint effort, achieve racial equality". Injustice appraisals were also measured with three items: "Racial inequality is unethical; Racial inequality violates moral rules; Discrimination toward Black people is unfair".

**Emotions and collective action.** I used the measure for emotions tested in the preliminary study. The only difference was that I only collected data of the three emotions

targeting the system of racial inequalities and the BLM Movement. Collective action was assessed as in the preliminary study, except that the items were on a 7-point Likert scale rather than a 5-point Likert scale. A visualisation of reliability values is presented in Table 3.

Exploratory variables. I measured three more variables for exploratory purposes. First, I assessed attitudes through the one-item feeling thermometer, on a scale from 0 *cold* to 100 *warm* (Converse et al., 1980; Lolliot et al., 2015). I asked participants to indicate "how cold or warm they felt toward (US Americans/ the Black lives matter movement/ the System of racial inequalities/ Black people/White people)". Afterwards, I assessed quality/valenced contact with a single item on a 7-point Likert scale from 1 *never* to 7 *always* (Barlow et al., 2012; Lolliot et al., 2015). I asked participants "on average, how frequently did you have positive/good contact with Black and White people?". Also, I assessed identity through the single-item social identification measure (SISI) (Postmes et al., 2013). Participants had to indicate the level of agreement with "I identify with (Black Lives Matter movement/US Americans/ Racial Justice activists/ White people/ Black people)" on a 7-point Likert scale from 1 *fully disagree* to 7 *fully agree*. Finally, through two dichotomous questions, I asked them if they supported the goal of racial equity and the Black Lives Matter movement.

#### **Results**

# Reliability

The items for the appraisals, emotions and collective action were analysed for reliability. The scales were found to be highly reliable. Subsequently, I created composite variables by averaging the items for each appraisal, for each emotion and target, and for collective action.

Descriptive statistics and reliability for each measure can be seen in Table 4. Correlations between all variables for the total sample and each group separately can be found in appendix B.

 Table 4

 Reliability values for each scale and each group in the main study

| Scale               | α   | M    | SD   |  |
|---------------------|-----|------|------|--|
| Collective efficacy | .95 | 4.05 | .90  |  |
| Unfairness          | .85 | 4.63 | .69  |  |
| Anger to System     | .91 | 3.52 | 1.05 |  |
| Anger to BLM        | .96 | 2.46 | 1.36 |  |
| Kama muta to System | .96 | 1.83 | 1.19 |  |
| Kama muta to BLM    | .94 | 2.93 | 1.16 |  |
| Sadness to System   | .94 | 3.52 | 1.11 |  |
| Sadness to BLM      | .96 | 2.48 | 1.23 |  |
| Collective action   | .93 | 5.24 | 1.52 |  |

Note: All items are 5-point Likert scales, except collective action that is in a 7-point Likert scale.

# Emotions toward the targets

To compare the levels of the three emotional reactions to the two targets, I conducted a GLM analysis with emotions and targets as within-participants factors and ethnicity as a between-group factor. For the interaction between emotion and target, sphericity was not met as indicated by Mauchly's test,  $\chi^2(2) = 134.64$ , p < .001. Since sphericity is violated ( $\epsilon = .69$ ), Huynh-Feldt results are reported. There was an overall difference between the emotions F(1.90, 1.90)

404.53) = 56.105, p < .001,  $\eta^2 = .21$ . Also, across the emotions, there are differences between White and Black participants F(1.90, 419.96) = 3.591, p = .031,  $\eta^2 = .02$ . There is an overall difference between targets irrespective of the emotions, F(1, 213) = 43.706, p < .001,  $\eta^2 = .17$ . However, there are no differences in the targets by ethnicity, F(1, 213) = 1.917, p = .168,  $\eta^2 = .01$ . Emotions differed depending on the target, as indexed by an emotions by target interaction, F(1.37, 292.36) = 153.33, p < .001,  $\eta^2 = .42$ . However, there was no three-way interaction between emotion, target and ethnicity, F(1,37, 292.36) = 1.726, p = .189,  $\eta^2 = .01$ . Finally, the test of between-subjects effects indicated that across emotions both groups differ in their overall emotion levels, F(1,213) = 12.733 p < .001,  $\eta^2 = .06$  (see Table 5). Black participants reported higher levels of emotional reactions across targets. The system of racial inequalities elicited a higher level of anger and sadness. The BLM movement elicited higher levels of kama muta, especially in Black participants.

**Table 5**Mean values for the emotional reactions for each target and each group in the main study

|           | White Pa          | articipants       | Black Participants |                   |  |
|-----------|-------------------|-------------------|--------------------|-------------------|--|
|           | System            | Movement          | System             | Movement          |  |
| Anger     | 3.39 [3.18; 3.60] | 2.13 [1.89; 2.38] | 3.65 [3.46; 3.84]  | 2.80 [2.54; 3.07] |  |
| Kama muta | 1.56 [1.37; 1.75] | 2.93 [2.77; 3.08] | 2.09 [1.84; 2.34]  | 3.13 [2.90; 3.37] |  |
| Sadness   | 3.48 [3.28; 3.68] | 2.37 [2.15; 2.59] | 3.56 [3.34; 3.78]  | 2.59 [2.35; 2.84] |  |

Note: Means and 95% confidence intervals.

# Multiple regressions

**Model 1.** I hypothesized that H1.a) Collective efficacy appraisals are positively associated with collective action intentions and H2.a) Unfairness appraisals are positively associated with collective action. I ran a multiple regression on the complete sample while including ethnicity as a moderator. As pre-registered, I regressed collective action on ethnicity (contrast-coded as -½ for White participants and +½ for Black participants), unfairness appraisal (centred), collective efficacy (centred), and the interaction terms of both unfairness and efficacy with ethnicity. Note that I did not include the three-way interaction. Also, note that centring was done on the complete sample.

The model explained 27.4% of variance of collective action,  $R^2$  = .27, F(5, 209) = 15.80, p < .001. The intercept was B = 5.25, and represents the average of collective action scores. The main effect of ethnicity was not significant, B = -.03, p = .885. Both appraisals explained a significant amount of variance. Unfairness appraisals increased collective action, B = .57 [.30, .84],  $\beta$  = .26, p < .001. Collective efficacy also increased collective action, B = .63 [.42, .84],  $\beta$  = .37, p < .001. Ethnicity did not moderate the effect of unfairness, B = -.34 [-.89, .20],  $\beta$  = -.08, p = .212 neither the effect of collective efficacy, p = -.29 [-.71, .13], p = -.09, p = .171.

The pre-registration also specified that the model would be run separately for both groups. For this, I also ran the same model for each group separately, without main effects and interaction terms of ethnicity. For White participants, 40.1% of variance in collective action was explained by the model, F(2, 104) = 34.77, p < .001. For Black participants, 12.4% of the variance was explained, F(2, 105) = 7.40, p < .001. For White participants, collective efficacy, B = .77 [.47, 1.09],  $\beta = .41$ , p < .001 and unfairness, B = .75 [.39, 1.10],  $\beta = .35$ , p < .001 increased collective action intentions. However, for Black participants, collective efficacy

increased collective action, B = .49 [.21, .76],  $\beta = .32$ , p = .001 but unfairness did not, B = .40 [-.02, .82],  $\beta = .17$ , p = .060.

**Model 2.** I hypothesized that H1.b) Kama muta toward the BLM movement is positively associated with collective action intentions, H2.b) Anger toward the system of racial inequalities has a positive effect on collective action intentions and H3.a) Sadness toward the system of racial inequalities has a positive effect on collective action intentions. I regressed collective action on ethnicity (contrast-coded as -½ for white participants and +½ for Black participants), anger (centered), kama muta (centered), sadness (centered) and the interaction terms of each of the three emotions with ethnicity. Note that I did not include any higher-order interactions.

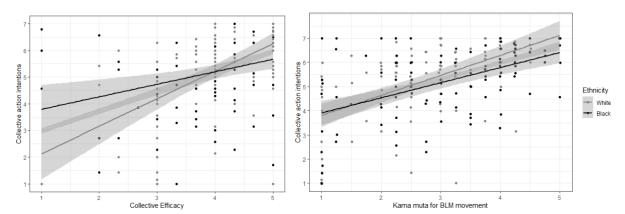
The model explained 54.5% of the variance of collective action F(7, 207) = 35.36, p < .001. The intercept was B = 5.23, which was different from 0, p < .001 (but remember that the scale ranged from 1 to 7). The main effect of ethnicity was marginally significant, indicating slightly higher values for white participants, B = -.32 [-.61, -.03],  $\beta = -.11$ , p = .030. The three emotions explained a significant amount of variance. Anger, B = .67 [.49, .85],  $\beta = .46$ , p < .001, kama muta, B = .32 [.18, .47],  $\beta = .25$ , p < .001, and sadness B = .10 [.02, .38],  $\beta = .15$ , p = .023, increased collective action intentions. Ethnicity did not moderate the effect of anger, B = .12 [-.24, .48],  $\beta = .52$ , p = .523, and neither kama muta, B = .17,  $\beta = .07$ , p = .245 [-.12, .47] (see Figure 2). Ethnicity did however moderate the effect of sadness, B = -.55 [-.90, -.20],  $\beta = -.20$ , p = .002.

I proceed to analyse the model in each group separately without centering variables. The model explained 61.4% of the variance of collective action for White participants F(3, 103) = 54.50, p < .001 and 46.2% of the variance for Black participants, F(3, 104) = 29.82, p < .001. For White participants, anger, B = .61 [.35, .88],  $\beta = .41$ , p < .001, sadness B = .48 [.19, .76],  $\beta = .41$ 

.32, p = .001, and kama muta, B = .24 [.01, 46],  $\beta = .16$ , p < .001, increased collective action. For Black participants, anger B = .73 [.49, .97],  $\beta = .50$ , p < .001 and kama muta B = .41 [.22, .60],  $\beta = .34$ , p < .001, but not sadness, B = -.07 [.19, .76],  $\beta = -.74$ , p = .460, increased collective action intentions. For both groups anger explained most of the variance of collective action. Kama muta explained more variance in the Black participants than in White participants, but this was not significant, as noted above. Sadness significantly explained variance in White participants but not in Black participants.

Figure 2

Scatterplot of the relationship between collective efficacy and collective action and Kama muta for BLM and Collective action intentions for both Black and White people



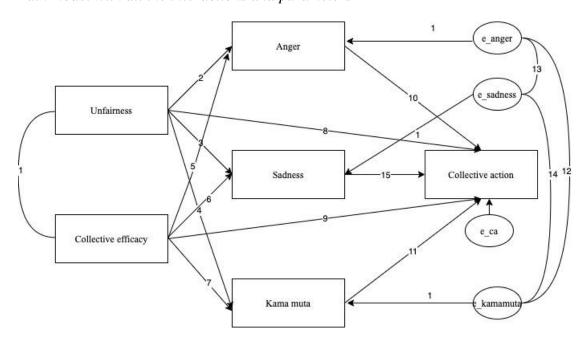
*Note:* The dots are jittered to avoid overdrawing and that these graphs do not take into account the other predictors.

Model 3. To test the mediation model, I performed a Structural equation modelling (SEM), using SPSS Amos version 27. The model combined the analyses above. It featured two independent variables (unfairness and collective efficacy appraisals), the three emotions as mediators, and collective action as the dependent variable. The complete model is depicted in Figure 3. The independent variables were allowed to correlate, as well the residuals of the three emotions. Direct effects of the appraisals on collective action were also included. The overall fit

was examined using the chi-square test and the root mean square error of approximation (RMSEA). A bootstrapping method (5000 iterations) was used to test the statistical significance of mediation with all mediators in the model. A multigroup analysis was performed to examine whether the mediation model was moderated by ethnicity. To do that, all regression weights and covariances were labelled in the model. There were in total 15 of them.

Figure 3

Path model with all the interactions and parameters



A preliminary model (1) tested whether the covariances among the residuals of the emotion terms (12, 13, 14) could be set to zero while allowing all other parameters to differ between the groups. This model did not fit the data well, RMSEA = .286 [.24, .33],  $\chi^2(6)$  = 110.29, p < .001. These parameters were thus allowed to differ from 0 in all following models.

In a second model, we set all parameters to be equal in the two groups (ie., b1=w1, b2=w2, ...., b15=w15). This tested the hypothesis that the two groups do not differ regarding the relationship between the variables. Overall fit was not good, RMSEA = .104 [.07, .14],  $\chi^2(15)$  = 49,51 p = .003. I inspected all modification indices > 2 (see Appendix C). The modification

indices indicated that relaxing the following parameters would substantially improve the fit of the model: (1) Covariance between unfairness and collective efficacy, (2) Regression path between collective efficacy and sadness, and (3) Regression path between sadness and collective action (which is in line with the regression analyses). In addition, the modification indices suggested adding a regression between kama muta and sadness in this model, which I did not follow, given that the residuals of the two emotions are allowed to correlate. In sum, the second model showed that Black and White participants differed regarding the covariance of the two appraisals and the influence of collective efficacy on collective action via sadness.

Consequently, in model 3, I allowed parameters 1, 6, and 15 to differ between the groups, while all other parameters were set to be equal. The overall fit is good, RMSEA=.044 [.00, .09],  $\chi^2(12) = 16.86$ , p = .540 (MacCallum et al., 1996). All parameters reported are from this model. Below in Table 6 is the summary of the coefficients for both groups separately.

The standardized total effect of collective efficacy on collective action, which includes both mediated and direct effects, was significant, for both White,  $\beta$  = .38, p < .001, and Black,  $\beta$  = .37, p < .001, participants. The standardized total effect of unfairness on collective action, which includes both mediated and direct effects, was significant for both White,  $\beta$  = .31, p < .001, and Black participants,  $\beta$  = .26, p < .001. The standardized indirect effect of collective efficacy through emotions on collective action is  $\beta$  = .22 for White and  $\beta$  = .18 for Black participants. The mediated effect of unfairness through emotions on collective action is  $\beta$  = .25 for White and  $\beta$  = .20 for Black participants. This indicates that more than half of the total effect of collective efficacy and two-third of the effect of unfairness on collective action is mediated through emotions.

**Table 6**Summary of multigroup path analysis

| Path  | W   | hite Part | icipants |      | Black participants |     |         |      |  |
|---|-----|-----------|----------|------|--------------------|-----|---------|------|--|
|   | В   | SE        | CR       | Beta | В                  | SE  | CR      | Beta |  |
| Unfairness →anger                                   | .57 | .09       | 6.24***  | .41  | .57                | .09 | 6.24*** | .34  |  |
| Collective efficacy →kama muta                      | .30 | .08       | 3.58***  | .24  | .30                | .08 | 3.58*** | .23  |  |
| Unfairness →sadness                                 | .26 | .10       | 2.60 **  | .19  | .26                | .10 | 2.60†   | .14  |  |
| Unfairness →kama muta                               | .36 | .11       | 3.40***  | .25  | .36                | .11 | 3.40*** | .19  |  |
| Collective efficacy $\rightarrow$ sadness           | .51 | .09       | 5.51***  | .43  | .08                | .11 | 65†     | 06   |  |
| Collective efficacy $\rightarrow$ anger             | .30 | .07       | 4.16***  | .24  | .30                | .07 | 4.15*** | .26  |  |
| Unfairness $\rightarrow$ collective action          | .14 | .11       | 1.23†    | .41  | .14                | .11 | 1.23†   | .06  |  |
| Collective efficacy $\rightarrow$ collective action | .30 | .09       | 3.48***  | .16  | .30                | .09 | 3.48*** | .19  |  |
| Kama muta $\rightarrow$ collective action           | .31 | .07       | 4.36***  | .21  | .31                | .07 | 4.36*** | .26  |  |
| Anger $\rightarrow$ collective action               | .61 | .09       | 6.79***  | .40  | .61                | .09 | 6.79*** | .44  |  |
| Sadness → Collective action                         | .28 | .11       | 2.46 †   | .18  | .01                | .09 | 0.06†   | .01  |  |

Note: \*\*\*p < 0.001, \*\*p < .05, †p < 0.1.

Abbreviations: SE, standard error; CR, critical ratio.

After adjusting the model, the SEM findings reveal that the direct path from unfairness to collective action was not significant anymore. Collective efficacy however retained a significant direct path to collective action. It was also found that collective efficacy was significantly related

to kama muta, sadness and anger. Kama muta and anger, but not sadness were significantly associated with collective action.

A bootstrapping method was used to judge the significance of specific indirect effects of unfairness and collective efficacy through each emotion on collective action. The mediation hypotheses were tested by requesting an additional estimate from Amos. The predicted mediations were tested with an alpha level of .05 each. In addition, I defined a new alpha level for the six unpredicted mediation tests as these were exploratory (in the lower half of Table 7). Bonferroni correction equals a new alpha level of .05/6 = .008. All mediation estimates are depicted in Table 7.

Table 7

Main indirect effects in the third model

| Mediation                                | В    | p     | CI         |
|--|------|-------|------------|
| Unfairness via anger                     | .344 | <.001 | [.22; 52]  |
| Collective efficacy via Kama muta        | .091 | .001  | [.04; .17] |
| Unfairness via Sadness (Black)           | .001 | .896  | [04; .05]  |
| Unfairness via Sadness (White)           | .071 | .030  | [.01; .18] |
| Collective efficacy via anger            | .179 | <.001 | [.09, .30] |
| Unfairness via kama muta                 | .110 | .001  | [.05, .19] |
| Collective efficacy via Sadness (Black)  | .000 | .779  | [02, .02]  |
| Collective efficacy via Sadness (White ) | .142 | .033  | [.03, .28] |

*Note:* All paths lead to Collective action. 95% confidence intervals

The results revealed that as hypothesised, kama muta mediated the relationship between collective efficacy and collective action and anger mediated the relationship between unfairness

and collective action. In addition, sadness mediated the relationship between unfairness and collective action, but only for White participants.

Finally, in the exploratory part, anger also mediated the relationship between collective efficacy and collective action and kama muta mediated the relationship between unfairness and collective action even after Bonferroni correction. In sum, both anger and kama muta mediated the relationship between both appraisals and collective action while sadness only mediated the association between unfairness and collective action only for white participants.

## **Exploratory Analysis**

Additional analyses were conducted to explore the association between identity, contact and attitudes toward different actors in the context of the Black Lives Matter movement and collective action. It is important to mention that these exploratory analyses describe the sample but do not elaborate on emotions and collective action. I ran simple correlations between all variables (*See table in appendix* B). In addition, I ran three multiple regression models using the stepwise method. They included: 1) Collective action regressed on attitudes toward US Americans, the BLM movement, the System of racial inequalities, Black people and White people; 2) Collective action regressed on identity with US Americans, the BLM movement, Racial Justice activists, White people and Black people; and 3) Collective action regressed on positive contact with Black people and White people. I carried out these analyses with the total sample and for each group of participants. Results are presented below.

*Model 1: Collective action regressed on Attitudes.* In the total sample the model explained 42% of the variance of collective action F(2,212) = 76.88, p < .001,  $R^2 = .43$ . The intercept was B = 2.11. Attitudes toward the BLM movement B = .03 [.02, .03],  $\beta = .49$ , p < .001 and attitudes toward White people B = .02 [.01, .03],  $\beta = .23$ , p < .001 increased intentions to

participate in collective action. No other predictor was significant. After splitting the sample, both attitudes toward the BLM movement and attitudes toward white people were predictors of collective action for both white and black participants. For White participants, the model explained 63.6% of the variance of collective action F(2,104) = 90.93, p < .001,  $R^2 = .63$ . Attitudes toward the BLM movement B = .04 [.03, .04],  $\beta = .66$ , p < .001 and toward white people B = .02 [.01, .03],  $\beta = .21$ , p = .004 increased collective action. For Black participants the model explained only 25.8% of the variance of collective action F(2,105) = 18.22, p < .001,  $R^2 = .26$ . Attitudes toward the BLM movement B = .02 [.01, .03],  $\beta = .30$ , p = .003 and attitudes towards White people B = .02 [.01, .03],  $\beta = .28$ , p = .006 increased collective action.

*Model 2: Collective action regressed on Identity*. In the total sample, the model explained 54% of the variance of collective action F(3,211) = 82.45, p < .001,  $R^2 = .54$ . The intercept was B = 2.25. Identification with racial justice activists, B = .58 [-.05, .15],  $\beta = .65$ , p < .001, and identification with the BLM movement B = .16 [.03, .28],  $\beta = .19$ , p = .013. Increased intentions to participate in collective action. However, identification with Black people, B = -.12 [-.20, -.04],  $\beta = .65$ , p = .005 decreased it. Other predictors were not significant.

After splitting the sample based on ethnicity, the model explained 58.4% of the variance of collective action for White participants F(2,104) = 73.07, p < .001 and 61.4% for Black participants F(2,105) = 83.48, p < .001. Identification with racial justice activists increased collective action in White participants B = .38 [.19, .59],  $\beta = .41$ , p < .001 and Black participants, B = .63 [.05, .45],  $\beta = .69$ , p < .001. In addition, identity with the BLM movement increased collective active intentions only for White participants B = .39 [.19, .59],  $\beta = .40$ , p < .001. Identification with Black people increased intentions to participate in collective action only

for Black participants B = .25 [.05, .45],  $\beta = .17$ , p = .013. Other variables were not predictors in any of both groups.

**Model 3: Collective action regressed on Contact.** After splitting the sample, the model explained 10.6% of the variance of collective action F(1,105) = 12.435, p < .001, for White participants. For Black participants the model explained 16.5% of the variance of collective action F(1,106) = 20.901, p < .001. Positive good contact with Black people predicted and increased intentions to participate in collective action for White participants B = .42 [.18, .65],  $\beta = .33$ , p = .001 and for Black participants, B = .68 [.38, .97],  $\beta = .41$ , p < .001. Contact with White people did not predict intention to participate in collective action for neither Black nor White participants.

#### **Discussion**

The regression analysis confirmed that both collective efficacy and unfairness appraisals were predictors of collective action intentions in the full sample. However, it did not have an effect on Black participants. Additionally, the three emotions were predictors of collective action intentions toward racial equity in the full sample, yet, after additional analyses by group, sadness was a predictor only for White participants. The structural equation modelling allowed a multigroup comparison of the mediation models between White and Black participants. The results suggest that Black and White participants differ in the covariances of the two appraisals and in sadness via collective efficacy path. The final model revealed that the association between unfairness and collective action was fully mediated through emotions. Overall, although collective efficacy and unfairness were associated with sadness, these associations and the mediation role of sadness via unfairness, were significant only for White participants. The paths

between collective efficacy and unfairness were mediated by both kama muta and anger in both White and Black participants.

Finally, the exploratory analysis suggests that attitudes, identity and contact were predictors of collective action intention toward racial justice. The strongest effect of attitudes was attitudes toward the BLM for both groups. The warmer the attitudes toward the movement, the higher the intentions to participate in collective action, this effect was particularly stronger in White participants. Regarding identity, Identification with racial justice activists had the strongest effect for both groups. Also, identification with the BLM movement increased participation in collective action only for White participants. Instead, for Black participants identification with Black people increased participation in collective action. Finally, positive good contact with Black people increased participation in collective action for both groups.

#### **General Discussion**

This master thesis investigated the role of kama muta on collective action intentions toward racial equity in the context of the Black Lives Matter movement (BLM). I hypothesised that kama muta toward the BLM movement would mediate the path of collective efficacy appraisals to collective action intentions. In addition, I included hypotheses about the role of anger and sadness toward the system of racial inequalities as mediators between unfairness appraisals and collective action intentions. To assess the emotions and their relationship with collective action in this research context, I developed and tested a new emotional measure in a preliminary study. Finally, to test the hypotheses, I ran a main correlational study that included data from White and Black participants.

# **Findings**

In the preliminary study, I found that the emotional measure successfully differentiated emotional reactions across targets. Also, kama muta toward the movement and sadness toward the system were the main predictors of collective action intentions toward racial equity. In the main study, I found that for both Black and White participants, kama muta toward the movement mediated the relationship between collective efficacy and collective action. Anger toward the system of racial inequalities fully mediated the relationship between unfairness and collective action. Further, I found that anger and kama muta also mediated the association between collective efficacy and unfairness, respectively. In addition, I discovered that sadness toward the system of racial inequalities mediated the relationship between unfairness and collective action intentions; however, this effect was only significant for White participants.

Thus, the results confirmed the main prediction about the mediator role of kama muta on collective action via collective efficacy. Nonetheless, it also indicates a mediator role of kama muta via unfairness. In addition, the model held for both White and Black participants, meaning that there was no difference between both groups in the pathways to collective action. Finally, through exploratory analyses, I found that identity as a racial justice activist, attitudes toward the BLM movement and contact with Black people were essential predictors of collective action toward racial equity.

To summarise, kama muta toward the movement is positively associated with collective action and mediated the collective efficacy and unfairness paths to collective action intentions toward racial equity. These findings suggest that kama muta is a critical emotional mechanism in collective action experienced by both advantaged and disadvantaged racial groups. I discuss the implications below.

# The social movement as an effective politicised common identity

Kama muta would allow the creation of communal sharing relationships that would enable advantaged and disadvantaged group members to work together toward a common cause. Common in-group identity can promote the reduction of stereotypes, prejudice and discrimination toward the out-group (Dovidio et al., 2000; Dovidio et al., 2010). However, it can undermine collective action intentions (Ufkes et al., 2016). Banfield and Dovidio (2013) found that emphasising a common "American" identity in white participants reduce the recognition of discrimination against Black people and consequently also their willingness to support them. In consequence, the authors suggested that awareness of racial injustice is essential to encourage collective action. However, my findings indicate that emphasising a common Political identity such as the Black Lives Matters movement that promotes recognition of racial inequalities and foster racial justice could instead encourage the participation of both advantaged and disadvantaged groups in social change. This shared political identification would also promote positive emotions toward the in-group (Tajfel et al., 1979), foster intercultural contact, and contribute to intergroup harmony.

A politicised collective identity based on shared values and beliefs about fairness and equity seems to be promising to integrate advantaged and disadvantaged groups (Subašić et al., 2008; Thomas et al., 2009a). Alternatively, Craig and colleagues (2020) suggest that advantaged groups take actions based on values and norms rather than shared identity and that perception of privileges is essential to encourage action. The current findings suggest that a common political identity based on values of fairness among advantaged and disadvantaged groups, such as the BLM movement, could make inequalities salient, promote awareness of privileges and subsequently influence collective action (Uluğ & Tropp, 2021). Therefore, a shared identification

within advantaged and disadvantaged groups is possible. This identification process appears to be essential to experience shared emotions that influence collective actions.

## Shared emotions by Black and White people promote collective action.

According to the Intergroup Emotions Theory (IET) (Mackie et al., 2000; Smith, 1993) group-level emotions depend on group identification, are shared by their members and can influence attitudes and behaviour between groups. My results suggest that kama muta and moral outrage could be considered intergroup emotions experienced in an in-group politicised identity framework beyond racial identities. Together, these shared emotions can promote collective action favouring the disadvantaged. Instead, sadness encouraged participation in collective action only in the advantaged group. There is evidence that empathic concern that occurs after seeing a person in need may evoke sadness (Zickfeld et al., 2017). Therefore, the feeling of sadness resulting from the perceived unfairness faced by Black people could encourage the White participants to engage in actions to support them. Alternatively, in Black participants, feelings of anger toward the systematic racism as responsible for their disadvantage could be strong enough to undermine their feelings of sadness (Walker & Smith, 2002).

There is evidence indicating that people can experience kama muta and moral outrage simultaneously. Becker and Tausch (2011) suggest that people can simultaneously experience positive self-direct emotions and negative out-group directed emotions during their involvement in collective action. Indeed, my findings indicate that people can experience both emotions depending on who they are directed to. Further, I suggest that following the Social Identity Theory (Tajfel et al., 1979), positive emotions can also be experienced directly toward the movement as an in-group identity rather than only to the self. This in-group identification is associated with positive emotions directed to the in-group (Muldoon et al., 2010). Indeed, my

results indicate that people felt kama muta as a positive emotion toward the movement depicting an in-group identity and moral outrage toward the system as the out-group (Klanderman & Simos, 2001).

Overall, the emotions shared by both White and Black participants were important predictors of collective action. Consistent with Thomas and Colleagues (2009), a shared identification with an opinion-based group that shares values and beliefs would be strengthened by a shared emotional understanding of the world. For instance, the murder of George Floyd raised awareness about the racial injustices that Black people face worldwide. In turn, people who believe in fairness and equality as a core value felt outraged. Simultaneously, many people came together to show their support and demand racial justice under the statement that Black Lives Matter. This emotional understanding based on feelings of anger toward the system of racial inequalities (which became the out-group) and kama muta toward the movement (ingroup) can promote a shared politicised identity (Simon & Klandermans, 2001) encouraging social change in both advantaged and disadvantaged racial groups.

# Appraisals of collective action encourage simultaneous emotional experiences

Morality has a vital role in communal sharing relationships, which renders the morality judgement based on principles of unity (Rai & Fiske, 2011). Moreover, morality could be an important motivator of collective action of the disadvantaged (van Zomeren et al., 2018) and the advantaged group (Radke et al., 2020). The theory of elevation predicts feelings of being moved after perceiving moral acts (Haidt, 2003). However, moral acts and closeness appraisals predict kama muta when individuals perceive and participate in the situation (Seibt et al., 2017). Unity emphasises sources of commonalities among the group and promotes supporting the in-group. Thus, moral appraisals that emphasise shared values of unity could cause kama muta

experiences. For instance, joining a protest can be judged as morally right because the purpose is to support the in-group's values. Therefore, people coming together to support racial justice may emphasise both morality and closeness appraisal, promoting collective action.

Working together for a cause may bring positive feelings that foster a shared identity and promote efficacy beliefs. Indeed, my results indicate that kama muta mediates the relationship between collective efficacy and collective action. However, the current data do not yet identify what elements of experiencing collective action caused the kama muta experiences and what role morality plays. Qualitative data could add more depth to understanding the context in which this emotion arises in a movement like Black Lives Matter.

The idea that experiencing collective efficacy is equivalent to a communal sharing identification and thus leads to kama muta experiences may be surprising at first. However, imagine situations like joining together to help a child that got lost, to push a car out of mud, or to defeat an opposing team in a tug-of-war. All these situations were mentioned by colleagues I discussed this observation with, and they all reported that they felt strong kama muta. The experience of jointly having the potential and indeed power to enact collective action might act as a manifestation and confirmation of the communal sharing relation and thereby cause an experience of oneness and togetherness (Fiske et al., 2019).

In addition to the mediator role of kama muta through the path of collective efficacy, the results showed that kama muta also mediated the association between unfairness and collective action. This relation was not predicted, but strong enough to survive the Bonferroni correction of the unpredicted mediations, and it deserves to be taken seriously while being interpreted with caution. Similarly to my results, Landmann and Rohmann (2020) found that the feeling of being moved mediated the association between unfairness appraisals and collective action. These

authors suggest that people were "negatively moved" by unfair practices and associated these feelings with sadness. However, my results indicate that sadness on collective actions does not account for the disadvantaged group. Alternatively, I suggest that appraisals of unfairness could elicit kama muta toward the movement because the movement represents positive core values such as fairness and equality fundamental to contrast the unfairness (Cova & Deonna, 2014). Likewise, that anger toward the system mediates the relationship between collective efficacy and collective action could indicate that collective efficacy can enhance negative emotions against the external agent and in turn, encourage participation in collective action (Becker & Tausch, 2015).

These results contrast with most collective action models that emphasise the tight association between unfairness appraisal and anger, indicating only *one* emotional path to collective action. As can be seen, my findings suggest that collective efficacy and unfairness appraisals could elicit simultaneously both moral outrage directed to the out-group and kama muta within the movement, making emotional both paths to collective action.

#### **Limitations and Future Research**

Future longitudinal studies could provide insights into the variability of emotional experiences and their power to predict collective action (Smith & Mackie, 2015). The current research investigated the effects of emotions in collective action toward racial equity under the context of the Black Lives Matter movement in 2021. I collected data in March (Preliminary study) and in May while the final George Floyd murder trial was held (Main study). The results varied somewhat between data collections. In the preliminary study, anger toward the system did not predict participation in collective action, and kama muta toward the movement had a more substantial effect. Instead, In the main study, anger had the strongest effect. Therefore, there is

also a possibility that if I had collected data after the verdict, the results would have been different due to an increase in collective efficacy (Drury & Reicher, 2005). These differences suggest that emotions could change over time depending on the vividness of events.

Future research in social emotions should also investigate shared emotions by both advantaged and disadvantaged groups. Mainly, research should emphasize feelings directed to external enemies and positive emotions directed to the common in-group. The measure designed and used in the current studies was piloted but otherwise not validated. Nevertheless, it includes a more complete description of emotional experiences that can be directed to different targets. Thus, future research can validate the scale and adapt it to other intergroup contexts.

It is important to mention that the sample size in this study is not representative, and therefore bigger samples could provide further evidence of the stability of these results. I aimed to collect data for 300 participants, 150 participants in each group, given that correlations are more stable around this sample size (Schönbrodt & Perugini, 2013). However, I ended up with a smaller sample size due to the failure of participants in the attention checks.

The findings of the current research may have important implications for collective actions in other intergroup contexts. When members of different groups come together under the same politicised identity, they can experience shared cognitions and emotions (Thomas et al., 2009a). As suggested by the findings of this research, kama muta might be a powerful emotion that promotes both inter-group harmony and collective action when it is experienced in a context that fosters awareness of inequalities and values of justice. Hence, work is needed to test if inducing kama muta experiences among members of a social movement may enhance the intention to participate in collective actions and contribute to sharing an identity in other contexts of inter-group relations. For instance, scenarios where women and men fight against patriarchy,

where locals and refugees come together to have a more integrated society or where LGTBQ members and heterosexuals join efforts to promote freedom of love.

In general, more evidence is needed to test the causality of the association between emotions and appraisals. While past work suggests a causal effect of unfairness appraisals on anger (Van Zomeren et al., 2008) we now miss equivalent work on the relationship between collective efficacy and kama muta. There may be a bidirectional relation. A shared identification with the values of the movement can evoke kama muta that in turns, increase collective efficacy beliefs and this enhancement of collective efficacy can also promote a shared group identification (Van Zomeren et al., 2010).

Finally, future research could focus on the role of kama muta in the relationship between contact, attitudes and identity in collective action. Contact between racial groups could improve intergroup relations by building empathy, humanising and enhancing personal relevance (Blomster Lyshol et al., 2020; Tropp & Barlow, 2018). The results of the exploratory analysis indicate that positive contact with Black people would also promote collective action to support them. Indeed there is evidence that positive contact predicts collective action in White participants through empathy and anger about injustice (Selvanathan et al., 2018). Further research could investigate the role of kama muta experiences in interactions among Whites and Blacks and how it influences their participation in collective action. In addition, how attitudes toward the movement can impact collective action and how negative experiences such as riots and looting can undermine the shared identification with the movement. The results also suggest that identification as a Racial justice activist is the best predictor of collective action for both groups. Further research could extend these findings and investigate how a shared identity as a

social justice activist can promote collective action favouring different disadvantaged groups and how kama muta could contribute to this identification.

To conclude, I hope the findings of this research highlight the power of emotions to congregate advantaged and disadvantaged groups under the same cause. It is only by a communal effort of all members of society that a fairer and more inclusive society for everyone is possible. Social movements have the power to promote a shared identity based on values of fairness and equality and direct efforts to identify a shared opponent. Kama muta experiences in this framework can help promote a shared identity aimed to foster a cohesive society and achieve social justice through collective action.

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# **Appendix**

# Appendix A

Sample Measure for emotions

#### **Instructions:**

In the description below, we describe an emotional state for you, keep in mind that not everyone experiences this emotion in the same way. Please read it carefully and think about what it is like for you to feel this emotion.

#### **EMOTION 1**

"This emotion gives you a negative feeling that makes you feel like you want to act to change the situation. Perhaps you have felt this emotion after being blocked from pursuing a goal and/or after perceiving unfairness. When the emotion is mild, you may feel aroused and irritated. When it is intense, you may notice a reddening in your face, an increase in your heart rate, muscle tension, more intense breathing, your jaws clenching, or that you furrow your brow. You would probably call this being angry, furious or indignant."

When thinking about the (target),

- How often did you feel this emotion toward the (Target) during the past year? (1)
  - Never (1); Rarely (2); Sometimes (3); Often (4); Always (5)
- During the past year, how strongly did you typically experience this emotion toward the (Target)?
  - Not at ll (1); Slightly strong (2); Somewhat strong (3); Moderately strong (4);
     Very strong (5)
- During the last year, how present was this emotion in your life, toward the (Target)?
  - Not at ll (1); Slightly present (2); Somewhat present (3); Moderately present (4);
     Very present (5)
- How easily do situations from the last year come to your mind where you felt this emotion toward the (target)?
  - Not at ll (1); Slightly easy (2); Somewhat easy (3); Moderately easy (4); Very easy (5)

#### **EMOTION 2**

"This emotion gives you a positive feeling, and it makes you feel connected to others. Perhaps you have felt this emotion after experiencing a sudden sense of closeness to somebody else or an incredibly strong bond with another person or a group of people. When this emotion is mild, it feels a little warm and fuzzy. When it is more intense, you may notice warmth or a stirring in the centre of the chest; your eyes may tear up, or you actually weep. Some people experience chills or goosebumps. You would probably call this as being touched or moved, and you would perhaps call the situation heart-warming."

When thinking about the (target),

- How often did you feel this emotion toward the (Target) during the past year? (1)
  - Never (1); Rarely (2); Sometimes (3); Often (4); Always (5)
- During the past year, how strongly did you typically experience this emotion toward the (Target)?
  - Not at ll (1); Slightly strong (2); Somewhat strong (3); Moderately strong (4);
     Very strong (5)
- During the last year, how present was this emotion in your life, toward the (Target)?
  - Not at ll (1); Slightly present (2); Somewhat present (3); Moderately present (4);
     Very present (5)
- How easily do situations from the last year come to your mind where you felt this emotion toward the (target)?
  - Not at II (1); Slightly easy (2); Somewhat easy (3); Moderately easy (4); Very easy (5)

#### **EMOTION 3**

"This emotion gives you a negative feeling that makes you feel «down». Perhaps you have felt this emotion after a loss, disappointment or misfortune suffered by yourself or others. When it is mild, you could notice that you sigh and slump. When it is intense, you may experience a drop in your mouth corners, a lump in your throat and tears. You would probably call this being depressed, sad or unhappy."

When thinking about the (target),

- How often did you feel this emotion toward the (Target) during the past year? (1)
  - Never (1); Rarely (2); Sometimes (3); Often (4); Always (5)
- During the past year, how strongly did you typically experience this emotion toward the (Target)?

- Not at ll (1); Slightly strong (2); Somewhat strong (3); Moderately strong (4);
   Very strong (5)
- During the last year, how present was this emotion in your life, toward the (Target)?
  - Not at ll (1); Slightly present (2); Somewhat present (3); Moderately present (4); Very present (5)
- How easily do situations from the last year come to your mind where you felt this emotion toward the (target) ?
  - Not at ll (1); Slightly easy (2); Somewhat easy (3); Moderately easy (4); Very easy (5)

# Appendix B

Correlation tables main study

## Table B1

| Descriptiv | e statistics | and c | correlations      | for    | main stu | dv | variables | in                     | full san | ınle | (N=215)  | ) |
|------------|--------------|-------|-------------------|--------|----------|----|-----------|------------------------|----------|------|----------|---|
| Descripiti | c similaries | unu c | Joi i Ciai i Oris | $_{I}$ | main sin | uy | variables | $\iota\iota\iota\iota$ | juu san  | ipic | (IV-2IJ) | , |

| -                        |      |      | •      |        | -      | _      |        |   |
|--------------------------|------|------|--------|--------|--------|--------|--------|---|
|                          | M    | SD   | 1      | 2      | 3      | 4      | 5      | 6 |
| 1.Collective<br>efficacy | 4.04 | 0.90 | 1      |        |        |        |        |   |
| 2.Unfairness             | 4.63 | 0.68 | .170*  | 1      |        |        |        |   |
| 3.Anger to system        | 3.52 | 1.05 | .308** | .403** | 1      |        |        |   |
| 4. Kama muta to movement | 2.93 | 1.16 | .277** | .267** | .460** | 1      |        |   |
| 5.Sadness to system      | 3.52 | 1.11 | .176** | 2.47** | .560** | .350** | 1      |   |
| 6. Collective action     | 5.24 | 1.52 | .422** | .353** | .664** | .527** | .450** | 1 |

<sup>\*</sup>*p* < .05. \*\**p* < .01.

 Table B2

 Descriptive statistics and correlations for study variables Black participants (N=108)

|                          | M    | SD   | 1      | 2      | 3      | 4      | 5      | 6 |
|--------------------------|------|------|--------|--------|--------|--------|--------|---|
| 1.Collective<br>efficacy | 4.08 | 0.94 | 1      |        |        |        |        |   |
| 2.Unfairness             | 4.61 | 0.63 | 057    | 1      |        |        |        |   |
| 3.Anger to system        | 3.65 | 0.99 | .124   | .265** | 1      |        |        |   |
| 4. Kama muta to movement | 3.12 | 1.19 | .202*  | .277** | .374** | 1      |        |   |
| 5.Sadness to system      | 3.56 | 1.16 | 123    | .150   | .405** | .166   | 1      |   |
| 6. Collective action     | 5.24 | 1.45 | .305** | .156   | .602** | .514** | .200** | 1 |

<sup>\*</sup>*p* < .05. \*\**p* < .01.

 Table B3

 Descriptive statistics and correlations for study variables white participants (N=107)

|                             | M    | SD   | 1      | 2      | 3      | 4      | 5      | 6 |
|-----------------------------|------|------|--------|--------|--------|--------|--------|---|
| 1.Collective<br>efficacy    | 4.00 | 0.84 | 1      |        |        |        |        |   |
| 2.Unfairness                | 4.64 | 0.74 | .394** | 1      |        |        |        |   |
| 3.Anger to system           | 3.38 | 1.07 | .498** | .525** | 1      |        |        |   |
| 4. Kama muta to<br>movement | 2.72 | 1.08 | .364** | .277** | .529** | 1      |        |   |
| 5.Sadness to<br>system      | 3.47 | 1.05 | .546** | .344** | .725** | .575** | 1      |   |
| 6. Collective<br>action     | 5.23 | 1.60 | .547** | .508** | .727** | .560** | .707** | 1 |

<sup>\*</sup>*p* < .05. \*\**p* < .01.

**Table B4**Descriptive statistics and correlations for study variables (identity and contact)

|                          | M    | SD   | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8           | 9    | 10     | 11     |
|--------------------------|------|------|--------|--------|--------|--------|--------|--------|--------|-------------|------|--------|--------|
| 1.Collective<br>efficacy | 4.04 | 0.90 | 1      |        |        |        |        |        |        |             |      |        |        |
| 2.Unfairness             | 4.63 | 0.68 | .170*  | 1      |        |        |        |        |        |             |      |        |        |
| 3.Anger to system        | 3.52 | 1.05 | .308** | .403** | 1      |        |        |        |        |             |      |        |        |
| 4.Kama muta to movement  | 2.93 | 1.16 | .277** | .267** | .460** | 1      |        |        |        |             |      |        |        |
| 5.Sadness to system      | 3.52 | 1.11 | .176** | 2.47** | .560** | .350** | 1      |        |        |             |      |        |        |
| 6.Contact black          | 5.52 | 1.11 | .165*  | .134*  | .254** | .286** | .177** | 1      |        |             |      |        |        |
| 7.Contact white          | 5.15 | .989 | .159*  | .030   | 045    | .027   | 045    | .369*  | 1      |             |      |        |        |
| 8.Black identity         | 4.85 | 2.01 | .200** | .101   | .289** | .276** | .256** | .449** | 073    | 1           |      |        |        |
| 9.White identity         | 4.43 | 1.77 | .089   | 105    | 082    | .019   | 156*   | 064    | .437** | -<br>.379** | 1    |        |        |
| 10.Movement<br>Identity  | 4.69 | 1.83 | .352** | .210** | .436** | .534** | .296** | .389** | .018   | .469**      | .035 | 1      |        |
| 11.Activist<br>Identity  | 5.02 | 1.71 | .403** | .295** | .554** | .501** | .356** | .383** | 052    | .499**      | .065 | .775** | 1      |
| 12. Collective action    | 5.24 | 1.52 | .422** | .353** | .664** | .527** | .450** | .343** | .009   | .256**      | .057 | .617** | .716** |

<sup>\*</sup>p < .05. \*\*p < .01.

**Table B5**Descriptive statistics and correlations for study variables (attitudes - ideology)

|                          | M    | SD   | 1      | 2           | 3      | 4      | 5      | 6      | 7      | 8      | 9           | 10          | 11 |
|--------------------------|------|------|--------|-------------|--------|--------|--------|--------|--------|--------|-------------|-------------|----|
| 1.Collective<br>efficacy | 4.04 | 0.90 | 1      |             |        |        |        |        |        |        |             |             |    |
| 2.Unfairness             | 4.63 | 0.68 | .170*  | 1           |        |        |        |        |        |        |             |             |    |
| 3.Anger to system        | 3.52 | 1.05 | .308** | .403**      | 1      |        |        |        |        |        |             |             |    |
| 4.Kama muta to movement  | 2.93 | 1.16 | .277** | .267**      | .460** | 1      |        |        |        |        |             |             |    |
| 5.Sadness to system      | 3.52 | 1.11 | .176** | 2.47**      | .560** | .350** | 1      |        |        |        |             |             |    |
| 6. Attitudes<br>black    | 66.1 | 25.3 | .147*  | 088         | 079    | .081   | 168*   | 1      |        |        |             |             |    |
| 7.Attitudes white        | 80.4 | 21.9 | .220*  | .301**      | .407** | .345** | .282** | .360** | 1      |        |             |             |    |
| 8.Attitudes<br>system    | 14.0 | 24.1 | .066   | -<br>.209** | 168*   | .051   | .213** | .300** | 067    | 1      |             |             |    |
| 9. Attitudes BLM         | 70.7 | 28.8 | .389** | .363**      | .505** | .569** | .356** | .096   | .552** | 126    | 1           |             |    |
| 10. Ideology             | 3.86 | 2.58 | 083    | -<br>.269** | .318** | 085    | .273** | .281** | 104    | .295** | -<br>.349** | 1           |    |
| 11. Collective action    | 5.24 | 1.52 | .422** | .353**      | .664** | .527** | .450** | .106   | .504** | 121    | .618**      | -<br>.372** | 1  |

<sup>\*</sup>*p* < .05. \*\**p* < .01.

**Appendix C**Modification index

**Table C**Modification index model all parameter equal for both groups

|                                    | White ? | Participants | Black participants |            |  |  |
|------------------------------------|---------|--------------|--------------------|------------|--|--|
|                                    | M.I     | Par change   | M.I                | Par change |  |  |
| Unfairness <-> Collective efficacy | 3.89    | .10          | 5.16               | 14         |  |  |
| Sad system <- Collective efficacy  | 5.40    | .19          | 9.71               | 34         |  |  |
| Collective action <- Sad system    | 2.04    | .14          |                    |            |  |  |
| Sad system <- kama muta movement   |         |              | 3,28               | -,16       |  |  |