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Solidarity-based collective action among third parties: The role of emotion regulation and moral outrage

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Abstract

Societal injustice can trigger moral outrage, an important predictor of solidarity-based collective action (CA). The present work investigated whether the impact of emotion regulation strategies on feelings of moral outrage shapes solidarity-based CA intentions in the context of two recent examples of environmental injustice—water crises of 2015–2016 and 2021 in Flint, Michigan, and Benton Harbor, Michigan. Three studies investigated the effect of engaging in distancing compared with immersion when processing information about the events on feelings of moral outrage among people who did not live in either city. The studies also investigated the downstream effect of moral outrage on people's willingness to engage in CA in solidarity with those affected. Processing the injustice by engaging in distancing compared with immersion resulted in less moral outrage, which reduced interest in engaging in CA. This research highlights the important role of emotion regulation strategies in influencing solidarity-based collective action among people not directly targeted by an injustice.

INTRODUCTION

Environmental injustice occurs when communities of color and low-income communities are disproportionately exposed to environmental harms (e.g., pollution), and receive unequal environmental protections from governmental programs, policies, and laws (Bullard et al., 2008). Recent water crises in Flint, Michigan (2015–2016) and in Benton Harbor, Michigan (2021) are clear examples of environmental injustice in that the population of both cities are predominately low-income people of color, including many living below the poverty line (Mohai, 2018; U.S. Census Bureau, 2019; Yang & Nagy, 2021). Individuals neither directly harmed nor directly responsible for perpetuating such injustices (i.e., third parties) can engage in solidarity-based collective action (CA) when such events occur (Saab et al., 2015). However, little is known about the factors that shape third parties' willingness to engage in CA to support those harmed by injustices. The present research considers whether the ways in which third parties manage their emotions—such as by engaging in distanced or immersed emotion regulation—in response to learning about an injustice shapes feelings of moral outrage and subsequent willingness to engage in solidarity-based CA in the context of the water crises (see Figure 1).

Moral outrage shapes solidarity-based CA

Prominent models of social change have investigated the factors that shape disadvantaged group members' willingness to engage in CA on behalf of their *own* group (van Zomeren et al., 2008). This almost exclusive focus on predicting disadvantaged group members' CA behavior is warranted given that group members suffer routinely from injustice and are therefore likely to be highly invested in addressing it (van Zomeren, 2013). Social change, however, also requires the support of the broader public or otherwise uninvolved societal members (i.e., third parties) who are neither directly responsible for an injustice nor targeted by it (Louis, 2009; Simon & Klandermans, 2001; Wouters, 2019). Since we live in an unequal society, third parties can be useful and effective advocates for disadvantaged groups because they are seen as more objective and more legitimate and because they yield more power (Iyer & Leach, 2010). Yet minimal research has examined that factors that shape third parties' willingness to engage in CA against injustice that does not affect them directly (cf., Saab et al., 2015). Emerging research suggests, however, that third parties' emotional reactions to an injustice influence whether they engage in or abstain from solidarity-based CA.

Emotional reactions elicited when someone perceives an injustice, such as moral outrage, play a critical role in motivating solidarity-based CA (Thomas et al., 2009; van Zomeren et al., 2008). Moral outrage emerges in response to an entity's (e.g., the government, and/or a corporation) moral transgressions—illegitimate actions that violate moral standards of fairness and justice (Batson et al., 2007). Like group-based anger, moral outrage stems from injustice, and injustice affecting a disadvantaged group is particularly likely to elicit it (Montada & Schneider, 1989; Thomas et al., 2009). Although moral outrage is conceptually similar to group-based anger, the cognitive appraisals that give rise to each emotional reaction and the target of each emotional reaction are different. Specifically, the appraisals that produce moral outrage are the violation of a moral standard or principle such as principles of equity or equality and that an external entity (e.g., political agents or authority figures) or systemic unfairness is to blame for the inequities faced by a disadvantaged outgroup (Batson et al., 2007; Montada & Schneider, 1989; Thomas et al., 2009). On the other hand, group-based anger is evoked by the appraisal that an

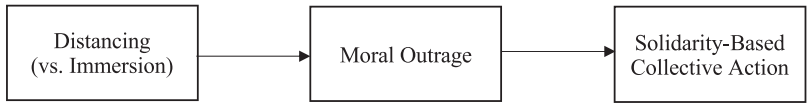

FIGURE 1 Theoretical model for the present research.

advantaged ingroup is to blame for the inequities faced by a disadvantaged outgroup (Thomas et al., 2009). Importantly, since the moral outrage experienced by third parties is directed toward the external entity (government, corporation, etc.) deemed responsible for the injustice, this emotional reaction is able to foster solidarity between third parties and disadvantaged group members (Thomas et al., 2009).

Moral outrage about an injustice predicts thirds parties' willingness to engage in CA (e.g., signing a petition, participating in a demonstration) to reduce the harms it causes (e.g., Montada & Schneider, 1989; Thomas et al., 2012). For example, British residents' feelings of moral outrage about the Israeli government's occupation of Gaza shaped their willingness to attend a protest in support of Palestinians (Saab et al., 2015). Understanding the factors that shape, or perhaps dampen, moral outrage can help predict the extent to which third parties will express interest in engaging in solidarity-based CA. We propose that emotion regulation strategies used in response to an injustice shape feelings of moral outrage and subsequent solidarity-based CA intentions (Goldenberg et al., 2016).

Emotion regulation, moral outrage, and solidarity-based CA intentions

Emotion regulation involves both the controlled and automatic processes by which people shape, experience, and express their emotions (Gross, 1998b). People enjoy feeling pleasant emotions (Larsen, 2000). When experiencing distress, they are often motivated to use emotion regulation strategies that make them feel better (Gross, 2015). Given that experiences and perceptions of injustice are associated with negative emotional experiences, such as moral outrage, it is likely that some people engage in emotion regulation strategies that decrease these negative emotions in the face of such events. Consistent with this hypothesis, prior work finds that people are motivated to reduce aversive emotions (e.g., feeling upset) in response to mass suffering, especially if they expected a request to donate money to help those in need (Cameron & Payne, 2011). The desire to dampen negative emotions, however, may come at the cost of engaging in social action to repair the damage done or, in the case of environmental and other injustices, to change the status quo (Ford & Feinberg, 2020; Goldenberg et al., 2016). Consequently, emotion regulation strategies that decrease (vs. increase or sustain) moral outrage may undermine the motivation to engage in solidarity-based CA.

Two emotion regulation strategies that people use when processing negative events are immersion and distancing (Ayduk & Kross, 2010). When people engage in immersion, they direct their attention to specific details of an event such as their feelings and/or the causes and implications of their feelings (Nolen-Hoeksema, 1991; Webb et al., 2012). Immersed processing of negative events is associated with rumination—persistent, intrusive preoccupation with the causes and consequences of an event (Nolen-Hoeksema, 1991; Webb et al., 2012). Although people often process negative events from an immersed perspective, this emotion regulation strategy is associated with the maintenance, and often, increase, of negative affect (Nolen-Hoeksema et al., 2008). For

instance, participants instructed to immerse themselves when viewing aversive images (e.g., a sick person in the hospital) by imagining themselves or a loved one inside the image experienced greater negative affect relative to participants instructed to simply look at the images (Ochsner et al., 2004).

Rather than immersion, people can instead engage in distancing when processing negative events (Ayduk & Kross, 2010). Distancing involves taking an objective, third person perspective when reflecting on a negative experience which allows people to reconstrue it and make meaning of the negative experience (Webb et al., 2012). Accordingly, distancing, relative to immersion, is often related to less negative affective outcomes when processing negative events since people are less focused on the concrete details of the event (Ayduk & Kross, 2010). The complement to the impact of imagining oneself or a loved one in the hospital is that participants instructed to take a detached, third person perspective when viewing pictures depicting a sick person in a hospital bed reported less negative affect than those instructed to simply look at the images (Koenigsberg et al., 2010; Ochsner et al., 2004). In other words, engaging in distancing when processing negative events engenders less negative affective outcomes.

Prior work has demonstrated that how people process an injustice experienced by their own group shapes their emotional reactions, which influences their willingness to engage in CA on behalf of their group (e.g., Borders & Wiley, 2020; Ford et al., 2019). For example, Ford and colleagues (2019) found that Democrats' use of reappraisal strategies (e.g., reinterpreting the meaning of the situation in more neutral, less negative terms) to manage negative emotions elicited by the 2016 US presidential election resulted in less negative emotions, and this predicted a lower likelihood of engaging in political action on behalf of Democrats (e.g., donating money, volunteering time). Thus, the effects of emotion regulation strategies extend beyond individual-level affect also impacting group-level outcomes, including engagement in CA *on behalf of one's own group*.

While previous research has established that emotion regulation shapes CA intentions *on behalf of one's own group* through their influence on negative emotions (e.g., Borders & Wiley, 2020; Ford et al., 2019), no research to date has examined whether similar processes shape third parties' willingness to engage in CA *in solidarity with* a socially disadvantaged group. The emotion regulation strategies that third parties use to manage their feelings of moral outrage when witnessing an injustice may clarify why some people idly stand by when they witness injustices, while others engage in action in concert with those harmed by injustices. The present research sought to address this gap in the literature by examining whether third parties' (i.e., people who do not live in Flint or Benton Harbor, Michigan) use of distancing relative to immersion when processing an injustice (i.e., the Flint and Benton Harbor water crises) shape their feelings of moral outrage, thereby shaping their willingness to engage in CA *in solidarity with* a disadvantaged outgroup (i.e., residents of Flint and Benton Harbor). Given the importance of third parties in social movements, it is important to understand the processes that influence their motivation to engage in solidarity-based CA.

THE PRESENT RESEARCH

The present research examines the role of two emotion regulation strategies—immersion and distancing—in shaping feelings of moral outrage and solidarity-based CA among third parties. In three studies, we investigated whether engaging in distancing relative to immersion while processing information about the Flint and Benton Harbor water crises shapes feelings of moral outrage and, therefore intentions to engage in solidarity-based CA (see Figure 1). We expected

that engaging in distancing when processing the water crises would reduce feelings of moral outrage compared to using immersion. We also expected that engaging in distancing (vs. immersion) would produce lower intentions to engage in CA on behalf of Flint and Benton Harbor Michigan residents, due to its effects on feelings of moral outrage. Studies 1 and 2 examine the implications of immersion and distancing in the context of the Flint, Michigan, water crisis. Study 3, a preregistered study, examines how these strategies shape moral outrage and solidarity-based CA in the context of the water crisis in Benton Harbor, Michigan.

STUDY 1

Study 1 examined the effects of processing a news clip about the Flint water crisis by engaging in distancing compared with immersion on feelings of moral outrage and intentions to engage in solidarity-based CA. We also included a control condition where participants received no instruction on how to process the information. Including a control condition allowed us to determine whether distancing would *decrease* moral outrage and subsequent solidarity-based CA intentions relative to the control condition or whether immersion might *increase* moral outrage and subsequent solidarity-based CA intentions relative to the control condition. Exploring the impact of distancing versus immersion relative to a control condition also allows us to ascertain third parties' default emotion-regulation response to witnessing an injustice. All data for Study 1 were collected between February 17, 2016, and February 19, 2016. We report all manipulations, measures, and exclusions in these studies either in the main text or in the Supplemental Materials. Study materials, additional measures, data, and syntax are available at the Open Science Framework (OSF) website. All procedures were approved by the Institutional Review Board (IRB) at the institutions where the work was conducted.

METHOD

Participants

In February 2016, participants were recruited using Cloud Research and compensated $1.50. Of the 428 participants who initially started the study, 67 stopped participation prior to the questionnaire with the dependent variables. This resulted in a final sample of 361 participants ($M_{age} = 35.13$ years-old, $SD_{age} = 10.72$ years-old). This final sample was evenly balanced by gender (53% women) but predominately White (74% White; 7% Black; 6% Asian; 6% Latinx). Participants reported the following socioeconomic levels: poor (8%), working class (31%), middle class (51%), upper middle class (10%), upper class (1%). All lived in the United States.[1] A sensitivity power analysis (G*Power; Faul et al., 2007) for an ANCOVA statistical test with one covariate and three groups was conducted to determine the minimum effect size that could be detected with our sample size. Analyses indicated that we were able to detect a small-to-medium effect size ($d = .32$), with an alpha of .05, and minimum power of .80.

[1] In Study 1, 12 participants indicated that they resided in Michigan. In Study 2, 12 participants indicated that they resided in Michigan, and in Study 3, 9 participants indicated that they resided in Michigan. The pattern of results remains consistent when not including Michigan residents (see supplemental materials); therefore, we retained Michigan residents in the analyses reported in the manuscript.

Measures and manipulations

News clip and emotion regulation manipulation

Participants watched a short video news clip that included information about the water crisis in Flint, Michigan, featuring a diverse group of residents describing their experiences contending with it. The video, for instance, described what contributed to the water crisis and residents discussed the role of the water crisis in contributing to disruptions in their daily lives (e.g., having to use bottled water to bathe) and their concerns about the effects of lead on their children. Participants were randomly assigned to one of three conditions: (1) immersion, (2) distancing, and (3) no-instructions control. Those in the immersion condition were told to try their best to take the perspective of the Flint, Michigan, residents in the video by imagining that they were residents of Flint and to consider how they would think, feel, and behave if they experienced what Flint residents experienced (e.g., Ochsner et al., 2004). Participants in the distancing condition were told to remain objective and detached as they watched by imagining they were an impartial judge watching a court case or a journalist who must simply pay attention to the facts (e.g., Gross, 1998a; Halperin et al., 2013; Ochsner et al., 2004). Participants in the control condition were not provided any instruction about how to watch or process the video. They were simply asked to watch it.

Moral outrage

Following previous research (Ellemers & Barreto, 2009; Leach et al., 2006; Montada & Schneider, 1989; Salerno & Peter-Hagene, 2013; Thomas et al., 2012) participants rated the extent to which they felt "angry," "irritated," "outraged," "hostile" "annoyed," "frustrated," and "disgusted," when thinking about the Flint water crisis. Participants made their ratings on scales ranging from 1 (strongly disagree) to 7 (strongly agree). Responses the to four items were aggregated to index feelings of moral outrage [$\alpha = .93$]).[2]

Solidarity-based CA intentions

Following previous research (Gill & Matheson, 2006; van Zomeren et al., 2004), participants also rated the extent to which they would engage in some sort of CA *behavior* on behalf of Flint, MI, residents. The 5-item ($\alpha = .91$) scale, adapted from Gill and Matheson (2006) and van Zomeren et al. (2004), included items such as "I would participate in some form of CA to help Flint, Michigan residents," and "I would participate in raising awareness by sharing news articles or social media posts about the Flint, Michigan water crisis." Participants made their responses using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

[2] The emotional response questionnaire also assessed other positive emotions, such as calm and proud. We do not report those analyses here because we are primarily interested in participants' feelings of moral outrage.

Familiarity with the flint water crisis

Participants responded to the single item, "How closely have you been following coverage of the Flint, MI water crisis?" on a scale of 1 (not very closely at all) to 7 (very closely); this variable was used as a covariate in all analyses. We controlled for participants' reports of how closely they had been following the Flint-related media because attention to news coverage shapes people's emotions and willingness to engage in social action such as political participation or charitable giving (Namkoong et al., 2012; Waters & Tindall, 2011).

Manipulation check

In order to assess whether participants successfully adopted the strategy to which they were randomly assigned, we asked them to respond to three items: (1) "To what extent did you try to imagine what the Flint, Michigan residents might be thinking, feeling, and experiencing while you were watching the video?" (2) "To what extent did you try to put yourself in the shoes of each individual in the video?" and (3) "To what extent did you try to be objective and detached while watching the video?" Responses to the first two items ($\alpha = .92$) were averaged to assess the extent to which participants engaged in immersion while the third item assessed the extent to which participants engaged in distancing. Participants made their responses using a 7-point Likert scale ranging from 1 (not at all) to 7 (very much so).[3]

Procedure

After providing informed consent, participants were told that they would complete a series of short tasks concerning social judgment and will be asked to imagine being part of different interactions. Next, participants were randomly assigned to the three groups, receiving no instruction or either the immersed or distancing instructions. To ensure that participants watched the entire video, they were not allowed to advance the to the next section of the study until after the video was finished. After watching the video, participants completed a thought-listing task to ensure that they processed the video according to their randomly assigned condition.[4] After the thought listing task, participants completed the emotion and solidarity-based CA

[3] We also included validity and attention checks in Studies 1–3 to ensure that participants were paying attention to the video and to screen for non-contingent responding. The pattern of results remains consistent when excluding participants who failed these checks, though we report the full sample in the main text unless we indicate otherwise (see Supplemental Materials).

[4] We conducted linguistic content analyses on participants' thought listings using the Linguistic Inquiry and Word Count program (LIWC 22; Boyd et al., 2022). We focused linguistic analyses on positive emotion words (e.g., happy, hope), negative emotion words (e.g., hurt, tired), and composite linguistic measures of analytical thinking (following Jordan et al., 2019; Pennebaker et al., 2014) and tone (following Cohn et al., 2004)). Overall, these results provide additional evidence that participants successfully adopted the strategy to which they were randomly assigned. Specifically, among participants in the distancing condition who were explicitly told to remain objective and detached, their essays were associated with the use of fewer negative affective words and greater analytical thinking relative to immersion and the no-instructions control. Distancing was also associated with more positive emotional tone relative to immersion. This illustrates that participants' essays in the distancing condition were more impersonal and less emotional compared to participants' essays in the immersion and the no-instructions control condition. Finally, simply watching the video was associated with fewer negative affect words (S1–S3) and less analytic thinking (S1 & S3) relative to the immersion condition. These results suggest

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TABLE 1 Study 1: Descriptive statistics and zero-order correlations.

Variables	*n*	Range of scores	*M*	*SD*	1	2	3	4	5
1. Immersion manipulation check	359	1.00–6.00	4.74	1.41	–	−.29***	.35***	.41***	.11*
2. Distancing manipulation check	359	1.00–6.00	4.11	1.62		–	−.21***	−.19***	−.01
3. Moral outrage	361	1.00–7.00	5.19	1.34			–	.40***	.17**
4. Solidarity-based CA intentions	360	1.00–7.00	5.04	1.48				–	.26***
5. Familiarity	358	1.00–7.00	3.39	1.82					–

Abbreviation: CA, Collective Action.
*$p < .05$; **$p < .01$; ***$p < .001$.

intentions measures. Last, participants were fully debriefed, thanked, and credited for their participation.

RESULTS

Participants' manipulation check scores, feelings of outrage, and solidarity-based CA intentions were submitted to one-way ANCOVAs controlling for participants' reports of how closely they had been following coverage of the Flint, MI, water crisis. See Tables S1-S4 for ANCOVA tables associated with these analyses. The pattern of results remains consistent when familiarity with the Flint Water crisis was not included as a covariate. See the Supplemental Materials for a summary of these results without the covariate. LSD posthoc analyses were used for pairwise comparisons. The descriptive statistics and zero-order correlations for all of the variables in Study 1 are provided in Table 1.

Manipulation checks

The homogeneity of variances assumption was tested but violated as indicated by Levene's *F*-test for the immersion manipulation check, $F(2, 353) = 33.16$, $p < .001$ and the distancing manipulation check, $F(2, 353) = 34.79$, $p < .001$. To account for this violation, we used the SPSS Mixed Procedure to conduct an ANCOVA that does not assume homogeneity of variance.[5] As expected, analyses revealed a main effect of emotion regulation condition for the immersion manipulation check, $F(2, 280.30) = 63.74$, $p < .001$. Participants in the immersed condition were

that immersed participants' essays were more personal and emotional compared with participants who simply watched the video. See Supplemental Materials for linguistic content analyses results.

[5] We were unable to obtain effect size estimates for the overall *F*-test using SPSS Mixed Procedure that was conducted to account for the violation of the homogeneity of variances assumption. Across all studies, this assumption was tested but violated as indicated by Levene's *F*-test for both manipulation checks. However, for all studies, we report the results of the ANCOVA without the adjustment in the Supplemental Analyses.

more likely to report that they tried to put themselves in residents' shoes compared to participants who engaged in distancing, ($M_{difference}$ = 1.76, 95% CI [1.43, 2.05]), $p < .001$, $d = 1.43$ and those in the no-instructions control condition, ($M_{difference}$ = .68, 95% CI [.36, .98]), $p < .001$, $d = .69$. Participants in the no-instructions control condition reported that they were more likely to put themselves in the residents' shoes than those in the distancing condition, ($M_{difference}$ = 1.08, 95% CI [.76, 1.38]), $p < .001$, $d = .77$.

Likewise, analyses revealed a main effect of emotion regulation condition for the distancing manipulation check, $F(2, 260.40) = 59.63$, $p < .001$. Participants in the distancing condition were more likely to report that they tried to remain objective and detached while watching the video compared to those in the immersed condition, ($M_{difference}$ = 1.66, 95% CI [1.30, 2.05]), $p < .001$, d = 1.16, and those in the no-instructions control condition, ($M_{difference}$ = 1.39, 95% CI [1.02, 1.77]), $p <$ .001, $d = 1.10$. There were no significant differences between participants in the no-instructions control condition and those in the immersion condition, ($M_{difference}$ = .28, 95% CI [−.09, .65]), $p < .001$, $d = .17$. These results suggest that participants successfully adopted the strategy to which they were randomly assigned.

Moral outrage

Analyses revealed a significant main effect of emotion regulation condition on participants' feelings of moral outrage, $F(2, 354) = 4.42$, $p = .013$, $\eta_p^2 = .024$. Consistent with predictions, participants in the distancing condition reported experiencing less moral outrage than participants in the immersed condition, ($M_{difference}$ = −.46, 95% CI [−.80, −.13]), $p = .007$, $d = .35$. Similarly, participants in the distancing condition reported experiencing less moral outrage compared with participants in the no-instructions control condition, ($M_{difference}$ = −.42, 95% CI [−.75, −.08]), $p = .016$, $d = .32$. There were no significant differences in outrage between participants in the no-instructions control condition and those in the immersed condition, ($M_{difference}$ = −.05, 95% CI [−.38, .29]), $p = .778$, $d = .04$.

Solidarity-based CA intentions

Analyses revealed a significant main effect of emotion regulation condition for intentions to engage in solidarity-based CA, $F(2, 353) = 6.12$, $p = .002$, $\eta_p^2 = .034$. As predicted, participants in the distancing condition, reported less interest in engaging in solidarity-based CA than participants in the immersed condition, ($M_{difference}$ = −.65, 95% CI [−1.01, −.28]), $p < .001$, d = .46.There were no significant differences in solidarity-based CA between participants in the immersed condition and no-instructions control condition, ($M_{difference}$ = .31, 95% CI [−.05, .67]), $p = .091$, $d = .22$ nor between those in the distancing condition and no-instructions control condition, ($M_{difference}$ = −.34, 95% CI [−.70, .03]), $p = .069$, $d = .24$.[6] See Table 2 for condition means and confidence intervals for all dependent variables.

[6] In Studies 1–3, we also controlled for several demographic variables (i.e., race/ethnicity, social class, conservatism, and liberalism). The pattern of results remains consistent when including these demographic covariates (see supplemental materials).

TABLE 2 Means by condition (Study 1).

	Immersion condition			Distancing condition			Control condition		
	M	***SE***	**95% CI**	***M***	***SE***	**95% CI**	***M***	***SE***	**95% CI**
Immersion Manip. check	5.53	.07	[5.40, 5.67] $_{a}$	3.78	.15	[3.48, 4.07] $_{b}$	4.85	.11	[4.64, 5.07] $_{c}$
Distancing Manip. check	3.48	.16	[3.16, 3.81] $_{a}$	5.15	.09	[4.97, 5.33] $_{b}$	3.76	.14	[3.49, 4.03] $_{a}$
Moral outrage	5.35	.12	[5.11, 5.59] $_{a}$	4.89	.12	[4.65, 5.13] $_{b}$	5.30	.12	[5.07, 5.54] $_{a}$
Solidarity-based CA intentions	5.35	.13	[5.09, 5.60] $_{a}$	4.70	.13	[4.44, 4.96] $_{b}$	5.04	.13	[4.78, 5.29] $_{a}$

Note: Each subscript letter across rows denotes statistically significant group mean differences at $p < .05$.
Abbreviations: CA, Collective Action; Manip., Manipulation.

Mediation analyses

We were interested in examining whether participants' feelings of moral outrage mediated the effect of emotion regulation on CA intentions. We ran a multi-categorical mediation analysis using the PROCESSv 3.5 macro in SPSS (Hayes, 2017) because our predictor variable had more than two levels. Specifically, we examined two comparisons (X): D1: Immersion versus Distancing and D2: No-Instructions Control versus Distancing. Participants' feelings of moral outage were entered as the proposed mediator (M), and solidarity-based CA intentions were entered as the outcome (Y) variable. In addition, familiarity with the Flint Water crisis was entered as a covariate. Monte Carlo simulation with 5000 replications and 20,000 Monte Carlo draws was performed at the confidence level of 95% determine whether sufficient power was achieved (Schoemann et al., 2017).

Consistent with predictions, participants in the distancing (vs. immersion) condition reported feeling less moral outrage, which in turn decreased their intentions to engage in CA ($b = -.18$, 95% CI [−.36, −.04]), with power estimated at 100%. Participants in the distancing (vs. no-instructions control condition) also reported feeling less moral outrage, which in turn predicted solidarity-based CA intentions ($b = -.16$, 95% CI [−.31, −.03]), with an estimated power of 100%. Follow-up analyses revealed no indirect effects of moral outrage on solidarity-based CA intentions ($b = -.02$, 95% CI [−.15, .09]), with power estimated at 11% among participants in the no-instructions control condition compared with participants in the immersed condition (see Figure 2). Together, these analyses suggest that relative to participants in the immersed condition and the no-instructions control condition, those in the distancing condition indicated lower solidarity-based CA intentions due to their reduced feelings of moral outrage.

DISCUSSION

Overall, the results of Study 1 demonstrated that processing a news clip about the Flint water crisis by engaging in distancing relative to immersion and simply watching the news clip reduced feelings of moral outrage. In addition, participants' feelings of moral outrage predicted their intentions to engage in solidarity-based CA. That is, participants in the distancing condition reported less moral outrage which, in turn, reduced solidarity-based CA intentions. This finding is in line with prior work demonstrating that emotion regulation strategies that reduce negative emotions

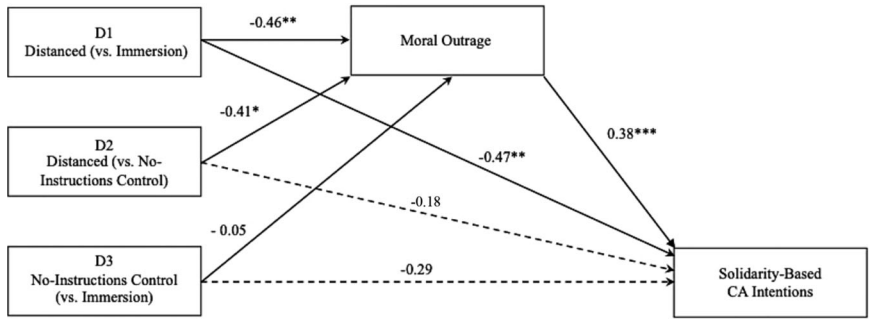

FIGURE 2 Study 1: Multi-categorical mediation model of the effect of emotion regulation condition on solidarity-based CA intentions. Path values represent unstandardized regression coefficients. CA, collective action. The dashed lines represent a nonsignificant pathway. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

also lower interest in engaging in CA (Ford et al., 2019). Study 1, however, extends prior research by providing the first evidence that emotion regulation in response to an injustice shapes third parties' emotional reactions and subsequent solidarity-based CA intentions.

In addition, results revealed that participants in the immersion condition and no-instructions control condition did not differ in their reports of moral outrage and solidarity-based CA intentions. One possible explanation for this null effect is that, in line with past research (Green et al., 2008; Shen et al., 2014) participants who simply watched the video may have felt immersed in our news clip (Knobloch et al., 2004; Shen et al., 2014) even without explicit instructions. This process, known as transportation, occurs when people become cognitively and emotionally immersed in a text or film, leading to strong emotional reactions (Green et al., 2008; Shen et al., 2014). Although we did not ask participants to immerse themselves in the video, simply watching the video may be enough to engender similar emotional reactions as those in the immersion condition.

Participants in the immersion condition in this study as well as Studies 2 and 3 were more likely to report putting themselves in residents' shoes compared to participants who engaged in distancing *and* those assigned to the no-instructions control. Thus, the null findings between participants in the immersion condition and those in the no-instructions control condition cannot be attributed to participants' failure to adopt the immersion strategy. Instead, and in line with research on transportation and narratives (Green et al., 2008; Shen et al., 2014) our results suggest that similar emotional reactions are elicited among participants who are immersed and those instructed to simply watch the video.

Consistent with the extant research on predictors of CA (van Zomeren et al., 2008), we assessed solidarity-based CA intentions as a proxy for solidarity-based CA behavior. While CA intentions are strongly related to actual behavior (de Weerd & Klandermans, 1999; Klandermans et al., 2002), in Study 2, we addressed this limitation by including a measure that more closely approximates solidarity-based CA behavior—participants' willingness to make a donation in support of Flint residents.

STUDY 2

Study 2 sought to replicate and extend the findings of Study 1 by examining whether the effects of emotion regulation on solidarity-based CA intentions observed in Study 1 would generalize to

another measure of CA—that is, willingness to make a donation to a relevant organization. Based on Study 1's findings, we predicted that participants who engaged in distancing would experience reduced feelings of moral outrage compared to those who engaged in immersion and those in the no-instructions control condition. We also predicted that, relative to participants in the immersion condition and those in the no-instructions control condition, participants who engaged in distancing while processing the Flint Water crisis would report lower solidarity-based CA intentions and behavior (i.e., willingness to donate), compared with those in the control condition, due to reduced feelings of moral outrage. Lastly, we did not expect any differences between participants in the immersion condition and those in the no-information CA. All data were collected between July 29, 2016, and August 1, 2016.

Participants

We recruited 429 participants using Cloud Research (formerly TurkPrime) and compensated $1.50. Among these, 37 people stopped participation prior to completing the questionnaire with the dependent variables of interest. This resulted in a final sample of 392 participants (M_{age} = 33.07, SD_{age} = 11.20; 63% Female). Our sample was predominately White (70%; 9% Black, 5% Asian; 8% Latinx). Participants reported the following socioeconomic levels: poor (9%), working class (37%), middle class (43%), upper middle class (10%), and upper class (2%). A sensitivity power analysis (G*Power; Faul et al., 2007) for an ANCOVA statistical test with one covariate and three groups was conducted to determine the minimum effect size that could be detected with our sample size. Analyses indicated that we were able to detect a small-to-medium effect size (d = .32), with an alpha of .05, and minimum power of .80.

Measures and manipulations

News clip and emotion regulation manipulation

Participants watched a brief video news clip that included information about the Flint, MI, water crisis and a diverse group of residents describing their experiences contending with the water crisis. As in Study 1, participants were randomly assigned to one of three conditions: (1) immersion, (2) distancing, and (3) no-instructions control. Participants were given the same instructions as in Study 1.

Moral outrage

Participants completed the same 7-item (α = .91) measure of moral outrage described in Study 1.

Solidarity-based CA intentions and willingness to donate

Participants completed the same 5-item (α = .86) CA measure described in Study 1. We also included a behavioral measure that assessed participants' willingness to make a donation in

support of Flint residents. Specifically, all participants were given a $1 bonus and asked to consider making a donation to the United Way of Genesee County Flint Water Fund. They were told: "You've earned a bonus payment of $1.00 for your participation today! You can donate all or part of the $1.00 to The United Way of Genesee County Flint Water Fund. Please select how much of your dollar you would like to donate to The United Way of Genesee County Flint Water Fund. Donations will be given to The United Way of Genesee County Flint Water Fund at the end of the study. We will allocate your bonus payment in MTurk at the end of the study as well."

Familiarity with the flint water crisis

Participants responded to the same single-item measure described in Study 1 assessing their familiarity with the Flint Water Crisis. This variable was again included as a covariate in all analyses.

Manipulation check

Participants completed the 2-item measure assessing the extent to which they engaged in immersion ($\alpha = .89$) and the single-item distancing measure described in Study 1.

Procedure

After providing informed consent, participants were told that they would complete a series of short tasks concerning social judgment and that will ask them to imagine being part of different interactions. Next, participants were randomly assigned either to the no-instruction condition or the immersed or distancing conditions. The same measures were taken to ensure that participants watched the entire video in that they were not allowed to advance the to the next section of the study until after the video was finished. After watching the video, participants completed a thought-listing task to ensure that they processed the video according to their randomly assigned condition. After the thought listing task, participants completed the emotion and solidarity-based CA intentions measures. Last, participants were fully debriefed, thanked, and credited for their participation.

RESULTS

Participants' manipulation check scores, feelings of moral outrage, and CA intentions and their willingness to make a donation were again submitted to one-way ANCOVAs controlling for how closely participants had been following coverage of the Flint, MI, water crisis. See Tables S5-S9 for ANCOVA tables associated with these analyses. The pattern of results remained consistent even when familiarity was excluded as a covariate. LSD posthoc analyses were used for pairwise comparisons. The descriptive statistics and zero-order correlations for all of the variables in Study 2 are provided in Table 3.

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TABLE 3 Study 2: Descriptive statistics and zero-order correlations.

Variables	*n*	Range of scores	*M*	*SD*	1	2	3	4	5	6
1. Immersion manipulation check	389	1.00–6.00	4.69	1.34	–	−.35***	.35***	.36***	.14**	.13*
2. Distancing manipulation check	389	1.00–6.00	3.90	1.71		–	−.19***	−.17**	−.10	.02
3. Moral outrage	392	1.00–7.00	5.44	1.10			–	.42***	.22***	.23***
4. Solidarity-based CA intentions	390	1.00–7.00	4.94	1.39				–	.22***	.18***
5. Dollar amount	375	.00–1.00	.50	.42						.09
6. Familiarity	392	1.00–7.00	3.07	1.63						–

Abbreviation: CA, Collective Action.
*$p < .05$; **$p < .01$; ***$p < .001$.

Manipulation checks

As in Study 1, the homogeneity of variances assumption was tested but violated as indicated by Levene's *F*-test for the immersion manipulation check, $F(2, 386) = 23.10$, $p < .001$ and the distancing manipulation check, $F(2, 386) = 14.28$, $p < .001$. To account for this violation, we used the SPSS Mixed Procedure to conduct an ANCOVA that does not assume homogeneity of variance. Consistent with expectations and replicating Study 1, analyses revealed a main effect of emotion regulation condition for the immersion manipulation check, $F(2, 300.45) = 43.20$, $p < .001$. Participants in the immersed condition were more likely to report that they tried to put themselves in each residents' shoes compared to participants who engaged in distancing, ($M_{difference} = 1.42$, 95% CI [1.13, 1.72]), $p < .001$, $d = 1.15$, and those in the no-instructions control condition ($M_{difference} = .46$, 95% CI [.17, .75]), $p = .002$, $d = .46$. Participants in the no-instructions control condition reported that they were more likely to put themselves in the residents' shoes compared to those in the distancing condition, ($M_{difference} = .96$, 95% CI [.67, 1.26]), $p < .001$, $d = .70$.

Likewise, analyses revealed a main effect of emotion regulation condition for the distancing manipulation check, $F(2, 260.14) = 67.62$, $p < .001$. Participants in the distancing condition were more likely to report that they tried to remain objective and detached while watching the video compared to those in the immersed condition, ($M_{difference} = 1.84$, 95% CI [1.47, 2.21]), $p < .001$, $d = 1.26$, and those in the no-instructions control condition, ($M_{difference} = 1.60$, 95% CI [1.23, 1.97]), $p < .001$, $d = 1.13$. There were no significant differences between participants in the no-instructions control condition and those in the immersion condition, ($M_{difference} = .24$, 95% CI [−.13, .61]), $p = .200$, $d = .15$. These results suggest that participants successfully adopted the strategy to which they were randomly assigned.

Moral outrage

Analyses revealed a main effect of emotion regulation condition for participants' feelings of moral outrage, $F(2, 388) = 3.45$, $p = .033$, $\eta_p^2 = .017$. Consistent with predictions and replicating Study 1, participants in the distancing condition reported experiencing less moral outrage than

TABLE 4 Means by condition (Study 2).

	Immersion condition			Distancing condition			Control condition		
	M	*SE*	95% CI	*M*	*SE*	95% CI	*M*	*SE*	95% CI
Immersion Manip. check	5.32	.07	[5.17, 5.46] $_{a}$	3.89	.14	[3.63, 4.16] $_{b}$	4.85	.10	[4.65, 5.06] $_{c}$
Distancing Manip. check	3.22	.15	[2.94, 3.51] $_{a}$	5.06	.11	[4.85, 5.28] $_{b}$	3.46	.14	[3.19, 3.73] $_{a}$
Moral outrage	5.51	.09	[5.33, 5.70] $_{a}$	5.24	.09	[5.05, 5.42] $_{b}$	5.56	.09	[5.38, 5.74] $_{a}$
Solidarity-based CA intentions	5.01	.12	[4.77, 5.24] $_{a}$	4.75	.12	[4.51, 4.99] $_{a}$	5.06	.12	[4.82, 5.29] $_{a}$
Dollar amount	.51	.04	[.43, .58] $_{a}$	.49	.04	[.41, .56] $_{a}$	.50	.04	[.42, .57] $_{a}$

Note: Each subscript letter across rows denotes statistically significant group mean differences at $p < .05$.
Abbreviations: CA, Collective Action; Manip., Manipulation.

participants in the immersion condition, ($M_{difference} = -.28$, 95% CI [−.54, −.02]), $p = .037$, $d = .26$, and those in the no-instructions control condition, ($M_{difference} = -.32$, 95% CI [−.58, −.06]), $p = .016$, $d = .30$. As in Study 1, there were no significant differences in the moral outrage of participants in the no-instructions control condition and those in the immersion condition, ($M_{difference} = .04$, 95% CI [−.22, .30]), $p = .750$, $d = .04$.

CA: Behavioral intentions and willingness to donate

Contrary to predictions, analyses revealed no significant effects for CA behavioral intentions, $F(2, 386) = 1.89$, $p = .153$, $\eta_p^2 = .010$ or willingness to donate, $F(2, 371) = .08$, $p = .923$, $\eta_p^2 = .000$. See Table 4 for condition means and confidence intervals for all dependent variables.

Mediation analyses

We again conducted multi-categorical mediation analysis using the PROCESS macro in SPSS (Hayes, 2017) to examine whether participants' feelings of moral outrage served as a mediator of the effect of emotion regulation on solidarity-based CA intentions and willingness to donate. Although the direct effect of condition on CA and willingness to donate were not statistically significant, we conducted mediation analyses given research demonstrating that it is appropriate to examine indirect effects in the absence of significant direct effects (Hayes, 2009; Rucker et al., 2011; Shrout & Bolger, 2002). We again examined two (X): D1: Immersion versus Distancing and D2: No-Instructions Control versus Distancing. Participants' feelings of moral outage were entered as the proposed mediator (M), and solidarity-based CA intentions were entered as the outcome (Y) variable. Finally, familiarity with the Flint Water crisis was entered as a covariate. Monte Carlo simulation with 5000 replications and 20,000 Monte Carlo draws was performed at the confidence level of 95% determine whether sufficient power was achieved (Schoemann et al., 2017).

Consistent with predictions, participants in the distancing (vs. immersion) condition reported feeling less moral outrage, which in turn predicted lower intention to engage in CA ($b = -.14$, 95% CI [−.28, −.01]), with power estimated at 100%, and willingness to donate ($b = -.02$, 95% CI [−.05, −.003]), with an estimated power of 97%. Participants in the distancing condition

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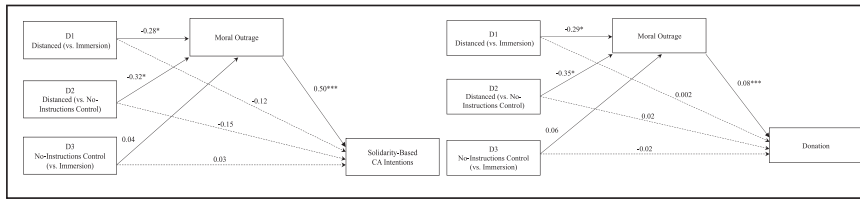

FIGURE 3 Study 2: Multi-categorical mediation model of the effect of emotion regulation condition on solidarity-based CA intentions and willingness to donate. Path values represent unstandardized regression coefficients. CA, collective action. The dashed lines represent a nonsignificant pathway. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

(vs. no-instructions control condition) also reported lower feelings of moral outrage, which in turn predicted lower levels of CA intentions ($b = -.16$, 95% CI [−.31, −.02]), with power estimated at 100% and willingness to donate ($b = -.03$, 95% CI [−.06, −.01]), with an estimated power of 98%. Follow-up analyses revealed no indirect effects of moral outrage on solidarity-based CA intentions ($b = .02$, 95% CI [−.11, .16]), with power estimated at 10%, and willingness to donate ($b = .005$, 95% CI [−.02, .03]), with an estimated power of 16%, among participants in the no-instructions control condition compared with participants in the immersed condition (see Figure 3). Together, these results replicate the findings of Study 1, and suggest that distancing may indeed undermine solidarity-based CA, compared with immersion, because it reduces feelings of outrage in response to injustice.

DISCUSSION

Study 2 provided a second test of the focal research question regarding the effects of distancing (vs. immersion) among third parties on feelings of moral outrage and solidarity-based CA *intentions and behavior*. Replicating Study 1, third parties who engaged in distancing when processing a news clip about the Flint, MI, water crisis reported reduced feelings of moral outrage. In addition, Study 1 provides additional evidence that feelings of moral outrage shaped the participants' solidarity-based CA intentions. That is, participants in the distancing (relative to those in the immersion and no-instructions control condition) reported less willingness to engage in solidarity-based CA. New to this study, we added participants' willingness to make a donation in support of Flint residents to more closely approximate solidarity-based CA behavior. Like the solidarity-based CA intention results, participants were less willing to make a donation to a relevant organization due to reduced feelings of moral outrage. The inclusion of the donation measure allowed us to examine whether our findings for solidarity-based CA intentions would generalize to a measure more closely aligned with behavior. The $1 donation option used in Study 2, however, may not be a meaningful proxy for CA behavior since the low amount is likely negligible for most participants. In Study 3, we raised the possible donation amount to $10 to address this limitation.

Contrary to our predictions and Study 1 results, we did not observe a significant main effect of emotion regulation on solidarity-based CA intentions and willingness to make a donation. Although this finding was contrary to our predictions, it is consistent with the extant literature demonstrating that perceptions of injustice often contribute to increased CA intentions (van Zomeren et al., 2008). Specifically, solidarity-based CA intentions were high across all

conditions in Study 2 ($M_{avg} = 4.94$, $SD_{avg} = 1.39$). Our findings are also in line with recent research demonstrating an indirect effect of emotion regulation strategies on political action via negative emotions (Ford et al., 2023). Nevertheless, our results support our conceptual model that distancing (vs. immersion) reduces moral outrage, consequently undermining participants' willingness to engage in solidarity-based CA (see Figure 1).

STUDY 3

Study 3 sought to replicate and extend the findings of Studies 1 and 2 in the context of a different water crisis: the Benton Harbor water crisis. Specifically, we examined the differential effects of processing a news clip about the Benton Harbor water crisis using the same conditions as in Studies 1 and 2 on feelings of moral outrage and intentions to engage in solidarity-based CA and willingness to make a donation to help affected residents. Based on the findings from the previous studies, we predicted that participants who engaged in distancing would experience reduced feelings of moral outrage compared to those who engaged in immersion and those in the no-instructions control condition. We also predicted that, relative to participants in the immersion condition and those in the no-instructions control condition, participants who engaged in distancing while processing the Benton Harbor water crisis would report lower solidarity-based CA intentions and behavior (i.e., willingness to donate), compared with those in the control due to reduced feelings of moral outrage. All data were collected in December 2021.

Participants

We recruited 437 participants using Prolific (https://prolific.ac/) and compensated them $4.00 each. Study 3 was preregistered prior to data collection on the OSF website. All pre-registered analyses are reported in the main body of the manuscript. Of the 437 participants who initially started the study, 37 stopped participation prior to completing the questionnaire with the dependent variables of interest. As outlined in our pre-registration, prior to data analysis we excluded participants if they failed the attention or validity check in the survey ($n = 14$). This resulted in a final sample of 386 participants ($M_{age} = 36.28$, $SD_{age} = 13.62$; 73% Female). Our sample was predominately White (71%; 6% Black, 7% Asian; 4% Latinx). Participants reported the following socioeconomic levels: working class (20%), lower middle class (21%), middle class (42%), upper middle class (15%), and upper class (1%). A sensitivity power analysis (G*Power; Faul et al., 2007) for an ANCOVA statistical test with 1 covariate and 3 groups was conducted to determine the minimum effect size that could be detected with our sample size. Analyses indicated that we were able to detect a small-to-medium effect size ($d = .32$), with an alpha of .05, and minimum power of .80.[7]

[7] In our pre-registration, we reported a priori power analyses and based our sample size on this effect size. We made a slight error in our initial reporting of the a priori analysis, thus we removed these analyses from the main text. However, the sample size recruited, and exclusion criteria are in line with that we reported in the pre-registration.

Measures and manipulations

News clip and emotion regulation manipulation

Participants watched a brief video news clip that included information about the Benton Harbor, MI, water crisis and a group of residents describing their experiences contending with the water crisis. The film clip was pilot tested among a separate sample of participants ($N = 117$) to ensure that it induced injustice perceptions as well as feelings of moral outrage. To assess perceptions of injustice, participants completed the following items, "Benton Harbor, Michigan residents were treated unjustly," and "The treatment of Benton Harbor, Michigan residents makes me feel discontent." Participants made their ratings on scales ranging from 1 (strongly disagree) to 7 (strongly agree) and responses to two items were aggregated to index injustice perceptions ($\alpha = .77$). Participants completed the same 7-item ($\alpha_{prefilm} = .91$; $\alpha_{postfilm} = .94$) measure of moral outrage described in Studies 1 and 2. Participants reported strong post-film injustice perceptions ($M = 6.44$, $SD = .71$). Results also revealed that the film clip increased feelings of moral outrage ($M = 4.76$, $SD = 1.40$) relative to pre-film feelings of moral outrage ($M = 2.01$, $SD = 1.09$), $t(116) = 18.80$, $p < .001$, $d = 1.74$.

As in Studies 1 and 2, participants were randomly assigned to one of three conditions: (1) immersion, (2) distancing, and (3) no-instructions control. Participants were given similar instructions to those described in Studies 1 and 2. However, we adapted the instructions (Ford et al., 2019) to ensure that the goal of changing one's emotion was activated among participants (see Supplemental Materials).

Moral outrage

Participants completed the same 7-item ($\alpha = .93$) measure of moral outrage described in Studies 1 and 2.[8]

Solidarity-based CA intentions and willingness to donate

Participants completed the same 5-item ($\alpha = .90$) measure described in Studies 1 and 2. We also included a measure that assessed participants' willingness to make a donation in support of Benton Harbor residents. Specifically, all participants were told: "At the end of the study, twenty participants will be randomly selected to win a bonus payment of $10. If you are chosen as a winner, you can donate all or part of the $10 to the Southwest Michigan Community Action Agency. If you are a winner, how much of the $10 would you like to donate to the Southwest Michigan Community Action Agency? Donations will be given to the Southwest Michigan Community Action Agency at the end of the study by members of the research team. We will allocate bonus payments for those chosen as winners at the end of the study as well."

[8] We deviated from the pre-registration by using a 7-item measure of moral outrage instead of a 4-item measure (i.e., "angry," "irritated," "outraged," and "hostile"). We made this change in response to a reviewer comment. The pattern of results remains unchanged when analyzing the results in line with the pre-registration.

Familiarity with the Benton harbor water crisis

Familiarity with the Benton Harbor water crisis was assessed with the same item as familiarity with the Flint water crisis in Studies 1 and 2. This variable was again included as a covariate in all analyses.

Manipulation check

Participants completed the 2-item measure assessing the extent to which they engaged in immersion ($\alpha = .94$) and the single-item distancing measure described in Studies 1 and 2.

Procedure

After providing informed consent, participants were told that they would complete a series of short tasks concerning social judgment and that will ask them to imagine being part of different interactions. The same instructions as in Studies 1 and 2 were provided for the three groups (immersed, distancing, no-instruction control condition) and the same procedures were followed to ensure participants watched and processed the video. After watching the video, participants completed the emotion and CA intention measures and indicated their willingness to make a donation. Then they were fully debriefed, thanked, and credited for their participation.

RESULTS

Participants' manipulation check scores, feelings of moral outrage, and CA intentions and their willingness to make a donation were again submitted to one-way ANCOVAs controlling for how closely participants had been following coverage of the Benton Harbor, MI, water crisis. See Tables S10-S14 for ANCOVA tables associated with these analyses. The pattern of results remained consistent even when familiarity was excluded as a covariate. LSD posthoc analyses were used for pairwise comparisons. The descriptive statistics and zero-order correlations for all of the variables in Study 3 are provided in Table 5.

Manipulation checks

As in the previous studies, the homogeneity of variances assumption was tested but violated as indicated by Levene's F-test for the immersion manipulation check, $F(2, 383) = 17.44$, $p < .001$ and the distancing manipulation check, $F(2, 383) = 16.04$, $p < .001$. To account for this violation, we used the SPSS Mixed Procedure to conduct an ANCOVA that does not assume homogeneity of variance. Consistent with expectations and replicating Studies 1 and 2, analyses revealed a main effect of emotion regulation condition for the immersion manipulation check, $F(2, 287.83) = 47.83$, $p < .001$. Participants in the immersed condition were more likely to report that they tried to put themselves in each residents' shoes compared to participants who engaged in distancing, ($M_{difference} = 1.40$, 95% CI [1.12, 1.71]), $p < .001$, $d = 1.20$, and those in the no-instructions control condition, ($M_{difference} = .57$, 95% CI [.27, .84]), $p < .001$, $d = .56$. Participants in the no-instructions

TABLE 5 Study 3: Descriptive statistics and zero-order correlations.

Variables	*n*	Range of scores	*M*	*SD*	1	2	3	4	5	6
1. Immersion manipulation check	386	1.00–6.00	4.80	1.32	–	−.26***	.40***	.33***	.20***	.11*
2. Distancing manipulation check	386	1.00–6.00	3.58	1.74		–	−.15**	−.05	−.09	.05
3. Moral outrage	386	1.00–7.00	5.15	1.32			–	.49***	.26***	.04
4. Solidarity-based CA intentions	386	1.00–7.00	5.46	1.29				–	.38***	.09
5. Dollar amount	385	1.00–10.00	5.79	3.49						.13*
6. Familiarity	386	1.00–7.00	1.56	1.17						–

Abbreviation: CA, Collective Action.
*p < .05; **$p < .01$; ***$p < .001$.

control condition reported that they were more likely to put themselves in the residents' shoes than those in the distancing condition, ($M_{difference}$ = .83, 95% CI [.57, 1.15]), $p < .001$, $d = .61$.

Likewise, analyses revealed a main effect of emotion regulation condition for the distancing manipulation check, $F(2, 250.98) = 102.99$, $p < .001$. Participants in the distancing condition were more likely to report that they tried to remain objective and detached while watching the video compared to those in the immersed condition, ($M_{difference}$ = 2.16, 95% CI [1.80, 2.52]), $p < .001$, d = 1.57, and those in the no-instructions control condition, ($M_{difference}$ = 1.84, 95% CI [1.47, 2.19]), $p <$ .001, $d = 1.32$. There were no significant differences between participants in the no-instructions control condition and those in the immersion condition, ($M_{difference}$ = .32, 95% CI [−.03, .69]), p = .073, $d = .20$. These results suggest that participants successfully adopted the strategy to which they were randomly assigned.

Moral outrage

Analyses revealed a main effect of emotion regulation condition for participants' feelings of moral outrage, $F(2, 382) = 6.59$, $p = .002$, $\eta_p^2 = .033$. Consistent with predictions and replicating Studies 1 and 2, participants in the distancing condition reported experiencing less moral outrage than participants in the immersion condition, ($M_{difference}$ = −.53, 95% CI [−.85, −.21]), $p = .001$, d = .40, and those in the no-instructions control condition, ($M_{difference}$ = −.50, 95% CI [−.83, −.18]), p = .002, $d = .39$. There were no significant differences in the moral outrage of participants in the no-instructions control condition and those in the immersion condition, ($M_{difference}$ = −.02, 95% CI [−.34, .29]), $p = .883$, $d = .02$.

CA: Behavioral intentions and willingness to donate

Analyses revealed no significant effects for CA behavioral intentions, $F(2, 382) = .30$, $p = .739$, η_p^2 = .002 or willingness to donate, $F(2, 381) = 1.86$, $p = .157$, $\eta_p^2 = .010$. See Table 6 for condition means and confidence intervals for all dependent variables.

TABLE 6 Means by condition (Study 3).

	Immersion condition			Distancing condition			Control condition		
	M	***SE***	**95% CI**	***M***	***SE***	**95% CI**	***M***	***SE***	**95% CI**
Immersion Manip. check	5.45	.07	[5.32, 5.58] $_{a}$	4.04	.13	[3.78, 4.31] $_{b}$	4.88	.11	[4.66, 5.09] $_{c}$
Distancing Manip. check	2.77	.14	[2.49, 3.05] $_{a}$	4.93	.10	[4.73, 5.12] $_{b}$	3.09	.14	[2.81, 3.37] $_{a}$
Moral outrage	5.33	.12	[5.11, 5.56] $_{a}$	4.81	.12	[4.58, 5.03] $_{b}$	5.31	.11	[5.09, 5.53] $_{a}$
Solidarity-based CA intentions	5.49	.11	[5.27, 5.72] $_{a}$	5.38	.12	[5.16, 5.61] $_{a}$	5.50	.11	[5.27, 5.72] $_{a}$
Dollar amount	5.83	.31	[5.23, 6.43] $_{a}$	5.34	.31	[4.73, 5.95] $_{a}$	6.17	.30	[5.58, 6.76] $_{a}$

Note: Each subscript letter across rows denotes statistically significant group mean differences at $p < .05$.
Abbreviations: CA, Collective Action; Manip., Manipulation.

Mediation analyses

We again conducted multi-categorical mediation analysis using the PROCESS macro in SPSS (Hayes, 2017) to examine whether participants' feelings of moral outrage served as a mediator of the effect of emotion regulation on solidarity-based CA intentions and willingness to donate. We again examined two (X): D1: Immersion versus Distancing and D2: No-Instructions Control versus Distancing. Participants' feelings of moral outage were entered as the proposed mediator (M), and solidarity-based CA intentions were entered as the outcome (Y) variable. In addition, familiarity with the Flint Water crisis was entered as a covariate. Monte Carlo simulation with 5000 replications and 20,000 Monte Carlo draws was performed at the confidence level of 95% determine whether sufficient power was achieved (Schoemann et al., 2017).

Consistent with predictions, participants in the distancing (vs. immersion) condition reported feeling less moral outrage, which in turn predicted lower intention to engage in CA ($b = -.25$, 95% CI [−.43, −.09]), and willingness to donate ($b = -.35$, 95% CI [−.65, −.11]). Participants in the distancing condition (vs. no-instructions control condition) also reported lower feelings of moral outrage, which in turn predicted lower levels of CA intentions ($b = -.24$, 95% CI [−.41, −.09]), and willingness to donate ($b = -.33$, 95% CI [−.61, −.11]). Post hoc analyses revealed that the statistical power to direct these indirect effects was sufficient (> .99*)*.Follow-up analyses revealed no indirect effects of moral outrage on solidarity-based CA intentions ($b = -.01$, 95% CI [−.16, .14]), with power estimated at 6%, and willingness to donate ($b = -.02$, 95% CI [−.23, .19]), with an estimated power at 7%, among participants in the no-instructions control condition compared with participants in the immersed condition (see Figure 4). Together, these results replicate the findings of Studies 1 and 2, and suggest that distancing may indeed undermine solidarity-based CA, compared with immersion, because it reduces feelings of outrage in response to injustice.

DISCUSSION

Study 3 replicated and extended the results of the previous studies. Consistent with Studies 1 and 2, third parties who engaged in distancing when processing a news clip about the Benton Harbor water crisis reported reduced feelings of moral outrage compared to those who immersed and those who simply watched the video. In support of our hypothesized model, we found that

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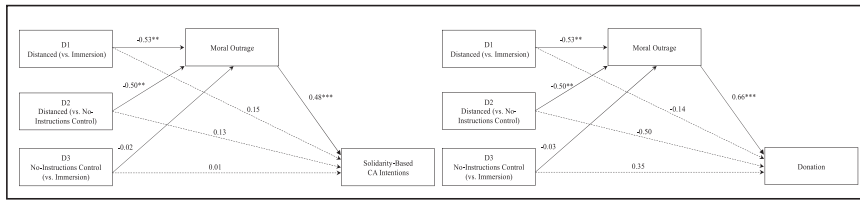

FIGURE 4 Study 3: Multi-categorical mediation model of the effect of emotion regulation condition on solidarity-based CA intentions and willingness to donate. Path values represent unstandardized regression coefficients. CA, collective action. The dashed lines represent a nonsignificant pathway. $*p < .05$, $**p < .01$, $***p < .001$.

the reduced feelings of moral outrage reported by third parties in the distancing condition (vs. immersion and no-instructions control) condition were related to lower feelings of moral outrage. Lower feelings of moral outrage were, in turn, associated with less solidarity-based CA and less willingness to make a donation in support of Benton Harbor residents. As in Ford and colleagues (2023) and Study 2, we did not observe any direct effects of emotion regulation condition on solidarity-based CA intentions and participants' willingness to make a donation to help Benton Harbor residents. However, solidarity-based CA intentions were high across all conditions in Study 3, much as in Studies 1 and 2 ($M_{avg} = 5.46$, $SD_{avg} = 1.29$), in line with research demonstrating that perceptions of injustice contribute to increased CA intentions (van Zomeren et al., 2008).

GENERAL DISCUSSION

The present research investigated whether engaging in distancing while processing information about the Flint water crisis differentially shapes feelings of moral outrage and intentions to participate in solidarity-based CA relative to immersed processing and compared with a no-instructions control condition. Results revealed that, overall, distancing (vs. immersion and a no-instructions control condition) reduced people's feelings of moral outrage, which, in turn, shaped their solidarity-based CA intentions. Interestingly, participants in the immersion and no-instructions control conditions reported similar levels of moral outrage and solidarity-based CA intentions, both of which were higher than that reported by participants in the distancing condition. This suggests that when people are exposed to instances of environmental injustice, at least of the magnitude and clarity of the Flint and Benton Harbor cases, they tend to process it in a fairly immersed manner. Taken together, the three studies presented here suggest that in order to inspire solidarity-based CA in third parties, it is important to combat emotion regulation strategies such as distancing that may dampen people's feelings of moral outrage and therefore their willingness to engage.

Theoretical implications

The present research complements previous studies that find that emotion regulation strategies shape group outcomes such as group-based emotion and CA (Ford et al., 2019; Goldenberg et al., 2016). We extend this research, however, by examining whether the effects of emotion regulation

on group outcomes generalize to third parties processing the injustice faced by a disadvantaged group. Furthermore, the current work bolsters recent theorizing on the benefits and costs of the use of different emotion regulation strategies in intergroup contexts (Ford & Feinberg, 2020; Ford & Troy, 2019). Specifically, engaging in emotion regulation strategies that reduce negative emotions such as feelings of moral outrage can dampen intentions to engage in CA.

The current research also builds and extends research on the role that perspective-taking plays in shaping intergroup attitudes (e.g., Todd et al., 2011) and helping behavior toward outgroup members (Batson et al., 1997, 2002). In the present research, we adapted the perspective-taking instructions to increase participants' sense of subjective closeness to Flint and Benton Harbor residents enabling them to fully immerse themselves in the experiences of members of these communities (Ochsner et al., 2004). Previous work has demonstrated that perspective-taking can increase empathy for members of stigmatized outgroups (i.e., murderers, drug addicts) which, in turn, increases the desire to help the group (Batson et al., 1997, 2002). We build and extend this work, however, by examining the effects of immersion and distancing on feelings of moral outrage and its effects on solidarity-based CA.

The present findings also dovetail with research on the process of transportation when viewing audiovisual media such as the television news. In the current research, we used news clips to expose people to information about the Flint and Benton Harbor water crises. Importantly, the clips featured the narratives of residents facing difficulties due to the water crises. Narrative use in news media facilitates transportation in the news story eliciting strong emotional reactions (Green et al., 2008; Shen et al., 2014). Our research demonstrates that such strong emotional reactions in response to perceived injustice via news clips can have important downstream implications for societal outcomes such as one's willingness to engage in solidarity-based CA.

Thus, learning about injustices may be enough to stoke moral outrage and increase interest in engaging in solidarity-based CA. However, third parties might be especially likely to engage in emotion regulation strategies such as distancing to reduce negative emotions elicited by witnessing an injustice as they do not have clear stakes in the measures that will alleviate the injustice (e.g., pipes being fixed in Flint) and are psychologically and physically distant from it (i.e., the injustice; Batson et al., 1987; Cameron & Payne, 2011; Klandermans, 1984). The present findings demonstrate that one way to forestall third parties from engaging in emotion-regulation strategies that reduce their negative emotions is by prompting them to process a news clip about an injustice by engaging in immersion. That is, emotion regulation strategies that increase or sustain so-called negative emotions, such as moral outrage, can boost intentions to engage in solidarity-based CA.

The present research raises the question of whether journalists should strive to appear objective when reporting on societal injustices. Specifically, third parties often become aware of injustices they do not have direct access to through the media (i.e., news; Hodgetts et al., 2004; Jun et al., 2022). Since the early 20th century, journalists have been called to adopt a scientific approach when gathering and reporting the news (e.g., Lippmann, 1922). As a result, journalists often attempt to report the news in a neutral and detached manner to convey objectivity (Boudana, 2011). People have started to critique this practice, however, especially when it comes to reporting on societal injustices such as police brutality (Lowery, 2020; Retta, 2020). The desire to appear "objective" often leads reporters to use euphemisms and coded language instead of accurately calling out racist patterns in policies or behavior, instantiations of systemic racism and bias. Thus, aspirational objectivity can conflict with truth-telling and can further perpetuate inequalities and reinforce the status quo (Lowery, 2020; Torrez et al. 2024). The present research suggests another potential consequence of aspirational objectivity in news reporting—a reduced willingness to engage in solidarity-based CA among viewers. That is, the emphasis placed on objectivity in

news reporting when reporting societal injustices might reduce moral outrage and undermine viewers' willingness to engage in solidarity-based CA. Given the important role that media can play in shaping attitudes about, and behaviors in response to, social injustice (e.g., Jun et al., 2022), understanding and critiquing perceptual goals of the media and their unintended public consequences is of utmost importance, and an area ripe for new research.

Limitations and future directions

Despite the many contributions of the research, there are limitations that suggest several promising avenues for future research. First, in all three studies we only investigated the effects of two emotion regulation strategies, immersion and distancing. People, however, may manage their emotions in response to an injustice faced by a disadvantaged outgroup in a number of ways. For example, it is possible that people choose not to express any emotions they may experience (i.e., suppression) or attempt to turn their focus away from their emotional state by either thinking about something positive or neutral that is unrelated to the injustice (i.e., distraction) when processing an injustice faced by a disadvantaged group (Gross, 1998a; Webb et al., 2012). Future research should consider the role of these and other emotion regulation strategies in shaping feelings of moral outrage and solidarity-based CA among members of third-party groups.

Second, we only examined moral outrage as predictor of solidarity-based CA among United States residents. There are, however, likely other emotions that promote engagement in social action on behalf of members of disadvantaged groups. For instance, sympathy in response to a disadvantaged group's suffering may also shape solidarity-based CA (Saab et al., 2015). Future research is needed to examine whether engaging in distancing (vs. immersion) results in decreased solidarity-based CA due to reduced feelings of sympathy. In addition, since we conducted our studies with US residents who share an identity (i.e., American) with Flint and Benton Harbor residents, it would be important to explore whether the pattern of results would generalize to third parties from more regionally distant backgrounds (e.g., British residents). It is possible that we might observe heightened effects among distant third parties in contrast to those who are geographically closer, considering the influential role that both physical and psychological separation from an injustice can have on individuals' emotional responses and subsequent decisions regarding emotion regulation (Batson et al., 1987; Cameron & Payne, 2011; Klandermans, 1984). Future research is needed to test this intriguing possibility. Third, we primarily considered the effects of emotion regulation on solidarity-based CA *intentions*. Although the donation measure used in Studies 2 and 3 approximates a behavioral measure of CA and intentions are generally predictive of actual CA *behavior* (e.g., de Weerd & Klandermans, 1999), future work is needed to examine whether the findings observed in the present research, generalize to actual CA efforts such as attending a protest or signing a petition.

Fourth, in Studies 2 and 3 we did not observe any direct effects of emotion regulation condition on solidarity-based CA intentions and participants' willingness to make a donation to help Flint and Benton Harbor residents. As previously discussed, our results are in line with recent work demonstrating an indirect effect of emotion regulation strategies on political action via negative emotions (Ford et al., 2023). Our zero-order correlations also provide additional support for our theorizing regarding the effects of immersion and distancing on feelings of moral outrage and willingness to engage in solidarity-based CA. Specifically, in all three studies, the extent to which people reported that they tried to put themselves in each residents' shoes (i.e., the immersion manipulation check) was significantly associated with greater feelings of moral outrage, more

solidarity-based CA intentions, and a greater willingness to donate in support of Flint and Benton Harbor residents (Studies 2 and 3). Likewise, the extent to which people reported that they tried to remain objective and detached while watching the video (i.e., the distancing manipulation check) was significantly associated with lower feelings of moral outrage and less solidarity-based CA intentions (Studies 1 and 2). Although we did not find direct effects of our emotion-regulation manipulation on solidarity-based CA intentions and behavior in Studies 2 and 3, the correlations point to emotion regulation processes playing a role in shaping intended behavior. Future work, therefore, is needed to examine whether the *successful* use of emotion regulation strategies (i.e., emotion regulation success; Ford et al., 2019) predicts feelings of moral outrage *and* solidarity-based CA intentions.

Last, we only considered the effects of emotion regulation strategies on moral outrage and solidarity-based CA in the context of the Flint and Benton Harbor water crises. Communities of color and low-income communities, however, contend with other forms of injustice including police brutality (Chaney & Robertson, 2013) and unequal access to health care (Williams & Mohammed, 2013; Yearby, 2018). Future research is needed to examine whether emotion regulation strategies shape feelings of moral outrage and solidarity-based CA when third parties process other forms on injustice faced by members of socially disadvantaged groups.

CONCLUSION

Members of socially disadvantaged groups are disproportionately affected by various forms of social injustices, including environmental injustices. It is imperative, therefore, to investigate factors that may shape engagement in social action on behalf of members of these groups. The present research suggests that emotion regulation strategies may be important predictors of moral outrage and solidarity-based CA among third parties. The use of distancing may reduce moral outrage and undermine solidarity-based CA while the use of immersion can be an effective strategy for sustaining moral outrage and bolstering solidarity-based CA intentions. It is important to engage third parties since they are seen as more objective and have more power in unequal societies (Iyer & Leach, 2010). Also, if third parties are leveraged as advocates, they might be less likely to be perpetrators of or bystanders to injustice. Both mechanisms can bring about a more just society. The resulting benefits accrue to all members of society.

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SUPPORTING INFORMATION

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