Original Manuscript

Social Psychological and Personality Science
1–12

DOI: 10.1177/19485506221083818
journals.sagepub.com/home/spp
SAGE

Motivating Collective Action in Diverse Groups: Person of Color Identity, Prototypicality Perceptions, and Environmental Attitudes

Jason C. Chin[1], Gustavo A. Mártir Luna[1], Yuen J. Huo[1], and Efrén O. Pérez[1]

Abstract

People of color (PoC) face common threats as marginalized ethno-racial groups, yet it remains unclear what drives a diverse range of people to collectively mobilize. Relative to White Americans, PoC are disproportionately endangered by environmental pollution. We suggest that when facing common threats, such as environmental injustice, making salient PoC-Identity (PoC-ID)—a superordinate category encompassing non-White groups—may motivate its members to collectively act. In a study with nationally representative samples of Black, Latinx, and Asian Americans (N = 1,866), we found that higher levels of PoC-ID predicted attitudes and behavioral intentions to confront environmental injustices, which were mediated by anger about environmental injustices and efficacy as PoC. Although PoC-ID consistently explained Black Americans' attitudes and behavioral intentions, its influence among Latinx and Asian Americans was moderated by self-perceived prototypicality as PoC. We discuss how these findings advance understanding of the psychological mechanisms of coalition-building among marginalized groups.

Keywords

collective action, people of color, environmental attitudes, social identity

> The community was politically and economically unempowered; that was the reason for the siting [of hazardous waste in Warren County]. They took advantage of poor people and people of color.
>
> —Dollie Burwell, Warren County environmental activist (as cited in McGurty, 1997)

In 1982, the state of North Carolina began constructing a hazardous waste site in Warren County, home to predominantly poor Black communities. Angered after losing legal battles, community members protested to impede its construction. Some marched, whereas others lay down in front of construction trucks, obstructing their passing. Although hundreds were arrested, and the site still built, the protests spurred the environmental justice movement (United Church of Christ, Commission for Racial Justice, 1987), leading to legislative change such as 1994's Executive Order 12898—Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (see McGurty, 1997).

Nonetheless, adverse environmental conditions continue to disproportionately affect Black, Latinx, Asian, and other communities of color, as recently underlined by a Social Vulnerability Report published by the U.S. Environmental Protection Agency (2021) and demonstrated in high-profile events, such as the construction of the Dakota Access Pipeline through Standing Rock and surrounding Native American communities, the Flint water crisis, and the disproportionate impact of Hurricane Katrina on Black and Vietnamese communities in New Orleans (Tang, 2011). Moreover, many psychological factors render collective action difficult among these assorted communities (Olson, 1965). We examine the conditions under which members of these distinct racial minority groups—with their different histories and distinct identities—will identify with a common in-group, *people of color* (PoC), to engage in collective action aimed at remedying environmental injustices experienced by non-Whites (e.g., Cortland et al., 2017; Dovidio et al., 2009; Gaertner et al., 1999).

[1]University of California, Los Angeles, USA

Corresponding Author:
Jason C. Chin, Department of Psychology, University of California, 502 Portola Plaza, Los Angeles, CA 90095, USA.
Email: jasoncchin@g.ucla.edu

The Psychology of Collective Action Among PoC

Sources of marginalization among non-Whites, relative to Whites, in the United States vary across minority groups (Zou & Cheryan, 2017), oftentimes leading to tense relations (Craig & Richeson, 2016), for example, the Black–Latinx dispute over jobs and political representation (Benjamin, 2017; McClain et al., 2007) and the Asian–Black tensions around local small business operations (Kim, 1999). These cases implicate sociological causes, including competition over scarce resources in underserved neighborhoods; however, beyond these factors are psychological mechanisms (e.g., salience of distinct ethno-racial identities) impeding inter-minority cooperation.

Differences in historical experiences and culture yielded specific identities that often divide ethno-racial minorities (Fredrickson, 1999). When identities crystallize, individuals perceive sharp inter-group differences, which can promote prejudice (Bastian & Haslam, 2008; Chen & Ratliff, 2018). Research demonstrates that social identity *threats* exacerbate these divisions (Branscombe et al., 1999; Craig et al., 2012) as individuals bolster their in-group's identity by distinguishing it from out-groups. Consequently, this drive toward inter-minority comparisons can divide Black, Latinx, and Asians in the United States, even when they face collective disadvantages as non-Whites (Pérez, 2021).

The stratification of minority groups in the racial hierarchy of the United States further discourages inter-minority cooperation (Sidanius & Pratto, 1999). That is, some minority group members embrace ideologies that legitimize group-based inequities because these ideologies also serve a palliative function. Similarly, system justification motives reduce the uncertainty and discomfort that comes with confronting an unfair system (Jost & Hunyady, 2003), which in turn predict decreased engagement in system-challenging collective action (Osborne et al., 2019). Similar to how disadvantaged groups may be motivated by identity threats to derogate other disadvantaged out-groups, members of such groups may also endorse system-justifying worldviews to cope with their own lower position. However, both reactions also come at the expense of cooperating with other subordinate groups to challenge shared marginalization.

Which Psychological Forces *Can* Mobilize PoC?

Research on coalition-building suggests that reminders of shared discriminatory experiences encourage positive inter-minority attitudes and a sense of common identity (Cortland et al., 2017; Craig & Richeson, 2012). However, these studies focus on individuals' evaluations of other groups and not behavioral intentions to engage in collective action, leaving unanswered the question of how a sense of common identity can motivate behavior to redress shared social injustices among ethno-racial minorities.

Accumulated research suggests that common identities can unite heterogeneous populations by minimizing perceived *intra*group differences and accentuating *inter*group distinctions (Dovidio et al., 2009; Turner et al., 1987). This extends the benefits of in-group favoritism to out-groups within a superordinate group. For example, identifying as *American* produces greater unity and cooperation among Black, Latinx, and White individuals (Huo & Molina, 2006). We therefore examine whether identification with the superordinate category, PoC, can similarly unify America's ethno-racial minorities.

Participation in collective action faces several obstacles, including time investment, coordination issues, and free rider concerns (Fowler & Kam, 2007). Yet the dual-pathway model of collective action (van Zomeren et al., 2004, 2008) proposes two group-based factors that promote collective action: feeling angry and efficacious *as a member of a group*. This framework contends that recognizing shared disadvantages is insufficient to galvanize in-group members toward collective action. Instead, mobilization hinges on feeling group-based anger and efficacy; in-group members must feel outrage about shared inequities and capable of working together to solve them. Prior work suggests that group-based feelings and attitudes arise from identity activation. Specifically, Seger et al. (2009) demonstrate that a person's favorable emotions and thoughts toward in-group members are activated when a social group category is made salient—a finding that Pérez (2021) demonstrates through large-scale experiments among Black, Latinx, and Asian Americans when reminded of the category, PoC.

Prototypical PoC

According to self-categorization theory, individuals who more closely embody the norms of an in-group are more likely to feel and act as group members (Seger et al., 2009; Turner et al., 1987). This means that those who see *themselves* as more representative of a common in-group (i.e., PoC) should express stronger emotions as members, with downstream consequences for collective action. Similarly, the more salient an identity such as PoC is, the more sensitive in-group members will become to shared threats, such as disadvantages relative to Whites. If these perceived disadvantages trigger feelings of group-based anger or efficacy, then those who highly identify as PoC will be motivated to improve their group's condition (Ellemers et al., 2002).

Social categories can resemble normal distributions of attributes with central tendencies and variances around them (Turner et al., 1987). The more a person sees oneself as a prototypical group member, the more they believe they embody group norms and attributes, leading them to invest more—cognitively, affectively, and behaviorally—in the group (Ellemers & Jetten, 2013; Schmitt & Branscombe, 2001). Indeed, self-perceived *prototypicality* may shape the

extent to which individuals act like group members. Thus, among PoC, individuals perceiving themselves as prototypical of this category should experience group-relevant emotions and thoughts more intensely, leading to collective action to redress shared disadvantages.

Some subgroups within a social category may be perceived as more prototypical of that category than other groups (Danbold & Huo, 2021; Waldzus et al., 2003). For instance, whereas Latinx and Asian Americans are seen as less prototypical, Black Americans view themselves as—and are perceived by other non-Whites to be—most representative of PoC in the United States, given their unique experience and legacies of slavery (Pérez, 2021). This aligns with research on the especially strong forms of discrimination and oppression that Black individuals face compared with other non-Whites (i.e., "Black exceptionalism"; Sears & Savalei, 2006). Thus, when the identity of PoC is made salient to non-Whites, its impact on attitudes and behavior may vary across ethno-racial groups.

PoC Identification (PoC-ID) and Collective Action Against Environmental Injustices

PoC are more likely to construe public health concerns, such as lack of neighborhood grocery stores, as environmental concerns, in addition to global ecological issues, such as rising sea levels (Song et al., 2020). PoC also worry more about environmental issues than White Americans (Lazri & Konisky, 2019; Mohai & Bryant, 1998) and are exposed to significantly more pollutants (Tessum et al., 2019). Thus, making salient the category, PoC, may catalyze anger and efficacy among ethno-racial minorities and motivate collective action around environmental injustices (Turner et al., 1994).

In a multiracial democracy such as the United States, collective action depends on the mass-mobilization of individuals (Olson, 1965; Riker & Ordeshook, 1968). PoC-ID is one pathway toward large-scale mobilization because it bridges distinct ethno-racial communities under a common identity to inject greater urgency into their efforts toward a shared goal. Because PoC-ID works, per our theory, by increasing a sense of efficacy and anger as PoC, this identity should reduce the high individual costs and disincentives associated with collective *in*action, which are more prevalent among ethno-racial minorities (Anoll, 2021).

In this study of Black, Latinx, and Asian Americans, we assess identification as a *person of color* and self-perceived prototypicality within this category. We also measure individuals' sense of anger and efficacy as PoC, attitudes toward environmental policies, and behavioral intentions to implement them. We expect that increased feelings of identification with PoC will lead individuals to express pro-environmental attitudes and behavioral intentions to address environmental injustices (Hypothesis 1 [H1]). Consistent with the dual-pathway model of collective action, we hypothesize that the relationship between PoC-ID and attitudes and behavioral intentions is *mediated* by group-based anger and group-based efficacy, (Hypothesis 2 [H2]). In turn, this mediation should be *moderated* by self-perceived prototypicality as a *person of color* (Hypothesis 3 [H3]). Hence, we expect that individuals who more strongly identify as PoC, *and* who see themselves as prototypical members, will feel greater anger and efficacy as PoC, leading them to express attitudes and behavioral intentions to combat environmental harms against PoC. As Latinx and Asian Americans perceive themselves as less prototypical PoC (Pérez, 2021), there should be more variance in these self-perceptions than among Black Americans. Thus, self-perceived prototypicality should moderate the hypothesized relationships among Latinx and Asian Americans, but not among Black Americans.

Method

Participants

We recruited samples of Black, Latinx, and Asian U.S. residents through Dynata, an online survey platform. Samples were benchmarked against the national average age, gender, and educational attainment levels for each group (U.S. Census Bureau, 2020). We yielded a total sample of 1,866, comprising 617 Black, 629 Latinx, and 620 Asian participants (see Table 1). Each subsample is powered at 80% to detect small effects ($f = .150$) in a structural equation model with four latent variables and 10 observed indicators.

Design and Procedure

To test whether PoC ID centrality inclines minority individuals to express pro-environment attitudes and behavioral intentions, we had all participants complete a brief battery of PoC ID centrality items early in each survey. This allows us to appraise H1, namely, greater PoC ID is associated with more positive attitudes and behavioral intentions toward the environment. Following our two PoC ID centrality items and two items assessing self-perceived prototypicality as PoC, our study also included a two-condition, between-subjects PoC framing manipulation. All participants saw questions about feelings of anger and efficacy regarding environmental issues, with half of participants seeing questions framed with explicit reference to the relevance of these issues to PoC (PoC-specific condition), whereas the other half of participants completed similar questions without reference to PoC (general condition). This manipulation helps us evaluate H2, by allowing us to observe whether the closer alignment between PoC-ID and PoC-specific mediators produces a relatively better fitting model. All other measures were identical across conditions, including outcomes that measured participants' attitudes and collective action intentions regarding both PoC-specific

Table 1. Demographics of Full Combined Sample and Black, Latinx, and Asian Samples

Demographic	Scale	Black participants (*N* = 617)	Latinx participants (*N* = 629)	Asian participants (*N* = 620)	Full sample (*N* = 1,866)
Age	in years	45.0 (*SD* = 19.6)	42.2 (*SD* = 18.7)	46.5 (*SD* = 19.5)	44.5 (*SD* = 19.3)
Gender		M = 239 (38.7%) F = 371 (60.1%) Other: 7 (1.1%)	M = 269 (42.8%) F = 354 (56.4%) Other/decline: 6 (1.0%)	M = 284 (45.8%) F = 329 (53.1%) Other: 7 (1.1%)	M = 792 (42.5%) F = 1,054 (56.5%) Other/decline: 20 (1.0%)
Ideology	1 = *extremely conservative*, 7 = *extremely liberal*	4.12 (*SD* = 1.67)	3.91 (*SD* = 1.70)	4.08 (*SD* = 1.45)	4.0 (*SD* = 1.6)
Education		Less than high school: 27 (4.4%) High school: 207 (33.6%) Some college: 199 (32.2%) Bachelor's or higher: 184 (29.8%)	Less than high school: 44 (7.0%) High school: 194 (30.8%) Some college: 201 (32.0%) Bachelor's or higher: 190 (30.2%)	Less than high school: 23 (3.7%) High school: 86 (13.9%) Some college: 106 (17.1%) Bachelor's or higher: 405 (65.3%)	Less than high school: 94 (5.0%) High school: 487 (26.1%) Some college: 506 (27.1%) Bachelor's or higher: 779 (41.8%)
Income (annual household)	Low income: Less than US$30,000. Middle income: US$30,000–US$100,000. High income: More than US$100,000.	Low income: 281 (45.5%) Middle income: 271 (43.9%) High income: 64 (10.4%)	Low income: 88(14.0%) Middle income: 403 (64.1%) High income: 137 (21.8%)	Low income: 70 (11.3%) Middle income: 311 (50.2%) High income: 238 (38.4%)	Low income: 439 (23.5%) Middle income: 985 (52.8%) High income: 439 (23.5%)
U.S.-born		585 (94.8%)	489 (77.7%)	398 (64.2%)	1,472 (78.9%)

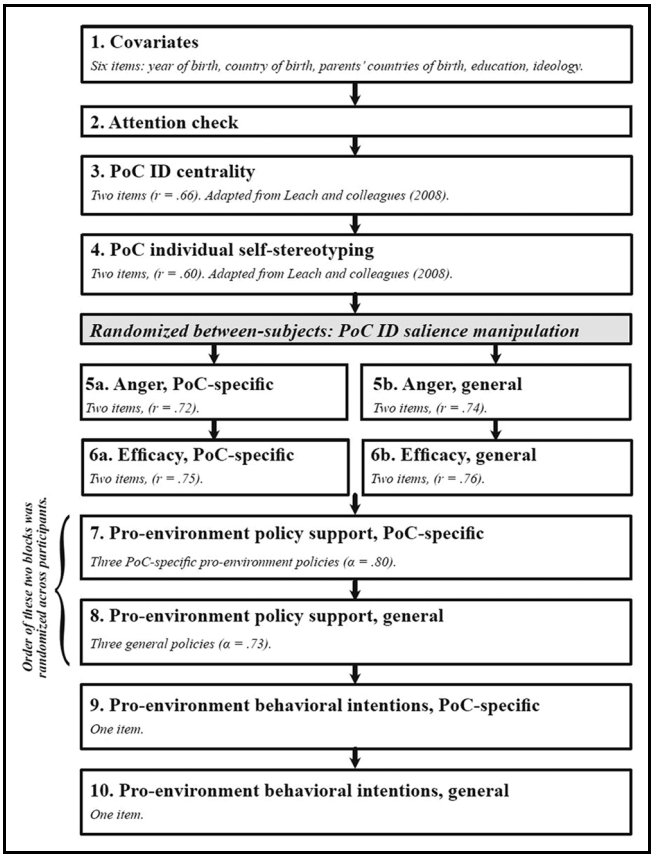

Figure 1. Measures, Manipulation, and Sequence of Studies.
Note. PoC-ID = people of color-identity.

and general environmental issues. See Figure 1 for a flowchart comprehensively detailing the sequence of measures and the experimental manipulation.

We test H1 and H2 without assuming that the same psychological process is present among prototypical PoC versus less prototypical PoC as these communities display wide heterogeneity in terms of arrival in the United States, experiences with discrimination, and socioeconomic status (Masuoka & Junn, 2013; Zou & Cheryan, 2017). If we find that PoC-ID's influence on environmental attitudes is mediated through anger and efficacy as PoC, then we have reason to combine data across samples to make a summary statement about any predicted patterns we find.

Measures

Background Variables. Participants reported their year and birth country, parents' birth country, gender, education, and ideology. Ideology was measured on a 7-point Likert-type scale, where higher scores indicate more liberal ideology, ranging from 1 (*extremely conservative*) to 7 (*extremely liberal*). Participants also completed an attention check task on the importance of attending to stimuli and instructions by having them select a specific answer to continue the survey.

PoC-ID. Participants completed two items ($r = .66$, $p < .001$) assessing strength of identity as PoC ("I identify as a person of color" and "The fact that I am a person of color is a central part of who I am"). Both items were adapted from the identity centrality dimension from Leach et al. (2008) and measured on 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Self-Perceived Prototypicality as PoC. Two items ($r = .60$, $p < .001$) assessed perceived prototypicality as PoC ("I am similar to the average person of color" and "I am a good example of a person of color"). Both items were adapted from the group self-definition dimension from Leach et al. (2008) and measured on 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Anger and Efficacy. Depending on their random assignment to condition, participants completed items assessing anger and efficacy, emphasizing either PoC-specific or general environmental issues.

Anger. In the PoC-specific condition, participants completed two items ($r = .72$, $p < .001$) measuring anger toward environmental harms specific to PoC ("I feel angry to learn that some businesses that are based in communities of color can pollute the environment with few consequences" and "I'm angered when I hear that many industrial companies operate in communities of color without strictly following environmental standards"). In the general condition, two items ($r = .74$, $p < .001$) assessed participants' anger toward environmental harms to communities in general ("I feel angry to learn that some businesses that are based in residential communities can pollute the environment with few consequences" and "I'm angered when I hear that many industrial companies operate in residential communities without strictly following environmental standards").

Efficacy. In the PoC-specific condition, participants completed two items ($r = .75$, $p < .001$) measuring efficacy in combating environmental harms specific to PoC ("By working with each other, people of color can achieve greater environmental justice for their communities" and "Acting as a team, people of color can limit some of the negative impacts that industrial businesses have on Black Americans, Asian Americans, Latinx, and Native American communities"). In the general condition, two items ($r = .76$, $p < .001$) assessed participants' sense of efficacy in environmental harms relating to communities in general ("By working with each other, individuals can

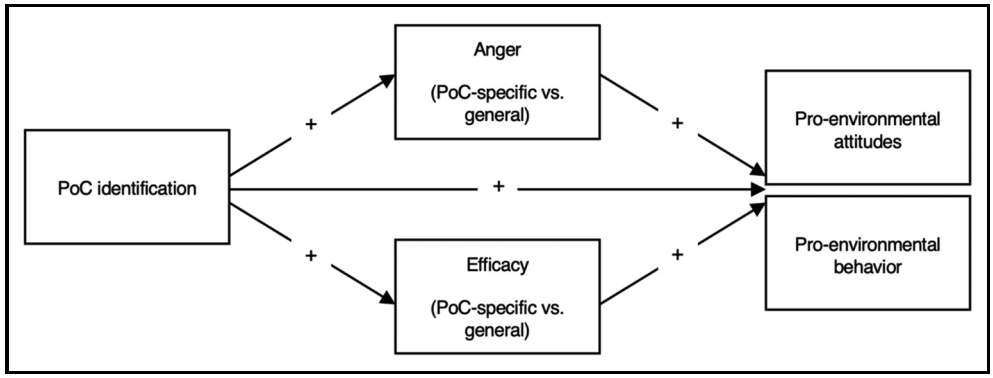

Figure 2. Estimated Models: PoC-Specific Versus General.
Note. This figure represents the two models compared against each other. Our framework expects that the model with PoC-specific (vs. general) anger and efficacy will display a better global fit. See text for results. PoC = people of color.

attain greater environmental improvements for their local community" and "Acting as a team, individuals can limit some of the environmental problems experienced by their local community").

Pro-Environmental Policy Support. To assess whether construal of environmental disparities as PoC facilitates collective action, we gauged participants' attitudes toward both general *and* PoC-specific environmental policies. The order of items was counterbalanced. Attitudes toward general (e.g., provide more federal funding for emergency relief from natural disasters) and PoC-specific environmental policies (e.g., tax breaks for full-service grocery stores in communities where PoC reside) were assessed with three items, each using a 7-point Likert-type scale, with higher scores indicating greater policy support (α = .73 and .80, respectively).

Pro-Environmental Behavioral Intentions. Participants' behavioral intentions to engage in collective action was assessed with questions about willingness to sign a letter to Congress urging the passage of policies that address PoC-specific and general environmental issues. The PoC-specific item read, "I would sign a letter to members of Congress, urging them to pass environmental policies that tackle environmental injustices in communities of color." The general item read, "I would sign a letter to members of Congress, urging them to pass environmental policies that tackle climate change on a global scale." Participants responded to both items.

Results

Materials, data, and code are available at Open Science Framework (OSF): https://osf.io/gnxe6/?view_only=c5076dcb63 0349b9afc99f72c3a23a0b.

Does PoC-ID Predict Pro-Environmental Attitudes and Behavioral Intentions?

We analyzed our data using structural equation modeling (SEM) with a maximum likelihood (ML) estimator (Bollen, 1989). To identify all models, we set the variances of our latent variables to 1.0, which produces coefficients in standard deviation units. We begin by estimating the direct effect of PoC-ID on pro-environmental attitudes and behavioral intentions items that were framed specific to PoC as we expected the hypothesized model to generate a better model fit than when framed as impacting people in general. We conducted tests of the model separately for each of the three samples. This tests H1, which predicts that higher PoC-ID levels will be associated with stronger pro-environmental attitudes and behavioral intentions. We find consistent support for this hypothesis among Black ($\beta_{attitudes}$ = .75, SE = .07, $p < .001$; $\beta_{intentions}$ = .84, SE = .09, $p < .001$), Latinx ($\beta_{attitudes}$ = .62, SE = .09, $p < .001$; $\beta_{intentions}$ = .85, SE = .11, $p < .001$), and Asian Americans ($\beta_{attitudes}$ = .78, SE = .10, $p < .001$; $\beta_{intentions}$ = .79, SE = .10, $p < .001$).

Next, we tested the relationship between anger, efficacy, and collective action when these are framed as affecting PoC (vs. people in general). We estimated two SEMs for each of the three samples. One estimates a PoC-specific SEM and another one a general SEM (see Figure 2). We expected the PoC-specific models to produce better fit compared with the general models, given the closer alignment between PoC-ID and expressions of anger and efficacy as PoC. This is what we find: In our Black American sample, the general model displays a decent fit, but the PoC-specific model displays a clearly better fit (general model: root mean square error of approximation [RMSEA] = .057, 90% CI [confidence interval] = [.034, .080], comparative fit index [CFI]/Tucker–Lewis index [TLI] = .981/.967, standardized root mean squared residual [SRMR] = .027

Table 2. PoC Anger and Efficacy Mediate Impact of PoC-ID on Black Americans' Environmental Attitudes and Behavioral Intentions

	Effects on mediators		Effects on attitudes and behavior	
	PoC-anger	PoC-efficacy	Environmental attitudes (PoC)	Environmental letter (PoC)
PoC-ID	.678*	.819*		
	(.113)	(.117)		
PoC	—	—	.327	.245*
Anger			(.185)	(.058)
PoC	—	—	1.220*	.270*
Efficacy			(.147)	(.071)
RMSEA	.019			
[90% CI]	[.000, .040]			
CFI/TLI	.998/.996			
SRMR	.026			

Note. $N = 618$. Entries are ML coefficients from an SEM estimated in Mplus. Coefficients display standard deviation units. ML = maximum likelihood; SEM = structural equation modeling; PoC-ID = people of color-identity; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; TLI = Tucker–Lewis index; SRMR = standardized root mean squared residual.
*$p < .05$ or better, two-tailed.

Table 3. Indirect Effects of PoC-ID on Pro-Environmental Attitudes and Behavioral Intentions Through PoC-Anger and PoC-Efficacy

Black Americans	Indirect effect [95% CI]
PoC-ID → PoC-anger → Pro-environment attitudes (PoC)	.222 [0.006, 0.498]
PoC-ID → PoC-anger → Pro-environment intentions (PoC)	.166 [0.081, 0.234]
PoC-ID → PoC-efficacy → Pro-environment attitudes (PoC)	.999 [0.862, 1.342]
PoC-ID → PoC-efficacy → Pro-environment intentions (PoC)	.221 [0.108, 0.359]
Latinxs	Indirect effect [95% CI]
PoC-ID → PoC-anger → Pro-environment attitudes (PoC)	.321 [0.147, 0.578]
PoC-ID → PoC-anger → Pro-environment intentions (PoC)	.307 [0.158, 0.505]
PoC-ID → PoC-efficacy → Pro-environment attitudes (PoC)	.192 [0.046, 0.436]
PoC-ID → PoC-efficacy → Pro-environment intentions (PoC)	.102 [–0.032, 0.262]
Asian Americans	Indirect effect [95% CI]
PoC-ID → PoC-anger → Pro-environment attitudes (PoC)	.136 [–0.073, 0.468]
PoC-ID → PoC-anger → Pro-environment intentions (PoC)	.254 [0.029, 0.538]
PoC-ID → PoC-efficacy → Pro-environment attitudes (PoC)	.674 [0.303, 1.353]
PoC-ID → PoC-efficacy → Pro-environment intentions (PoC)	.405 [0.146, 0.864]

Note. PoC-ID = people of color-identity; CI = confidence interval.

vs. PoC-specific model: RMSEA = .019, 90% CI = [.000, .040], CFI/TLI = .998/.996, SRMR = .026). A comparable pattern emerges among Latinxs, where the general model produces a poorer fit relative to the PoC-model (general model: RMSEA = .117, 90% CI = [.100, .134], CFI/TLI = .928/.880, SRMR = .112 vs. PoC-specific model: RMSEA = .063, 90% CI = [.042, .085], CFI/TLI = .991/.967, SRMR = .030). Similarly, we find that, among Asian Americans, the general model yields a poorer fit relative to the PoC-specific model (general model:

Table 4. PoC Anger and Efficacy Mediate Impact of PoC-ID on Latinxs' Environmental Attitudes and Behavioral Intentions

	Effects on mediators		Effects on attitudes and behavior	
	PoC-anger	PoC-efficacy	Environmental attitudes (PoC)	Environmental letter (PoC)
PoC-ID	.444*	.463*		
	(.092)	(.084)		
PoC	—	—	.723*	.692*
Anger			(.182)	(.156)
PoC	—	—	.414*	.221
Efficacy			(.180)	(.155)
RMSEA	.063			
[90% CI]	[.042, .085]			
CFI/TLI	.981/.967			
SRMR	.030			

Note. N = 308. Entries are ML coefficients from an SEM estimated in Mplus. Coefficients are displayed as standard deviation units. ML = maximum likelihood; SEM = structural equation modeling; PoC = people of color; PoC-ID = PoC-identity; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; TLI = Tucker–Lewis index; SRMR = standardized root mean squared residual.
*$p < .05$ or better, two-tailed.

RMSEA = .083, 90% CI = [.063, .103], CFI/TLI = .964/.938, SRMR = .032 vs. PoC-specific model: RMSEA = .038, 90% CI = [.000, .063], CFI/TLI = .993/.988, SRMR = .027). Given these consistent patterns, our remaining analyses focus on our PoC-specific models from each sample, where all variables reference PoC (Figure 2).[1] The results reported for these models are robust to the inclusion of four covariates (liberal ideology, college education, income, and U.S.-born status); these alternate estimates can be found in the Supplemental Tables S1–S3. We use these models to test our mediation hypothesis, H2.

Models for Black Americans

The H2 suggests that the influence of PoC-ID on pro-environmental attitudes and behavioral intentions occurs indirectly through a sense of anger and efficacy as PoC. Table 2 shows that stronger PoC-ID levels among Black Americans are reliably associated with reports of anger (.68, SE = .11, $p < .001$) and efficacy as PoC (.82, SE = .12, $p < .001$). In turn, there are unit-changes in anger and efficacy as PoC are associated with more favorable attitudes toward policy initiatives addressing environmental injustices experienced by PoC (PoC-anger: .33, SE = .19, p = .077; PoC-efficacy: 1.22, SE = .15, $p < .001$) although the former pattern is marginally significant. PoC-ID's indirect effects spillover onto behavioral intentions, where unit shifts in PoC-anger and PoC-efficacy are significantly associated with Black Americans' intent to endorse a letter urging Congress to address environmental injustice in communities of color. Table 3 demonstrates that these indirect effects are significantly different from zero. This evidence is consistent with H2: PoC-ID's mobilizing influence is mediated by Black individuals' sense of anger and efficacy as PoC.

Models for Latinx Americans

Results from our Latinx sample are consistent with H2. Table 4 shows that a standard deviation increase in PoC-ID among Latinxs is reliably associated with a stronger sense of anger and efficacy as PoC (PoC-anger: .44, SE = .09, $p < .001$; PoC-efficacy: .46, SE = .08, $p < .001$). Moreover, unit shifts in PoC-anger (.72, SE = .18, $p < .001$) and PoC-efficacy (.41, SE = .18, p = .021) are reliably associated with more favorable attitudes toward environmental policies benefiting PoC. As with Black Americans, we also find that standard deviation shifts in PoC-anger (.69, SE = .16, $p < .001$) and PoC-efficacy (.22, SE = .16, p = .152) are each positively linked to Latinxs' intention to endorse a letter to Congress. Apart from the path from PoC-ID to behavioral intentions through PoC-efficacy, all these indirect effects are statistically significant. These results affirm the presence of shared motivations (i.e., PoC-anger and PoC-efficacy) as mediators of PoC-ID's impact on our outcomes.

Models for Asian Americans

Results for Asian Americans are also consistent with H2. Table 5 shows that higher PoC-ID levels spur Asian Americans to report more PoC-anger (.57, SE = .13, $p < .001$) and PoC-efficacy (.77, SE = .13, $p < .001$), with unit shifts in PoC-anger (.24, SE = .23, p = .285) and PoC-efficacy (.87, SE = .35, p = .012) displaying positive associations with stronger pro-environmental attitudes although the anger–attitudes link is statistically unreliable. This broad pattern extends to Asian Americans' behavioral intentions, where greater PoC-anger (.45, SE = .19, p = .018) and PoC-efficacy (.52, SE = .19, p = .006) display significant relationships with intentions to endorse a letter

Table 5. PoC Anger and Efficacy Mediate Impact of PoC-ID on Asian Americans' Environmental Attitudes and Behavioral Intentions

	Effects on mediators		Effects on attitudes and behavior	
	PoC-anger	PoC-efficacy	Environmental attitudes (PoC)	Environmental letter (PoC)
PoC-ID	.566*	.773*		
	(.126)	(.132)		
PoC	—	—	.241	.448*
Anger			(.225)	(.190)
PoC	—	—	.872*	.524*
Efficacy			(.348)	(.189)
RMSEA	.038			
[90% CI]	[.000, .063]			
CFI/TLI	.993/.988			
SRMR	.027			

Note. PoC = people of color; PoC-ID = PoC-identity; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; TLI = Tucker–Lewis index; SRMR = standardized root mean squared residual.
*$p < .05$ or better, two-tailed.

to Congress. Except for the pathway from PoC-ID to environmental attitudes through PoC-anger, all indirect effects are statistically significant, which further suggests that PoC-ID impacts our outcomes through PoC-anger and PoC-efficacy.

Does Self-Perceived Prototypicality Moderate the Relationship between PoC-ID and Anger and Efficacy?

H3 stipulates that self-perceived prototypicality as a *person of color* moderates the connections between PoC-ID and PoC-anger and PoC-efficacy. Prior work finds that Black Americans are perceived as most representative of the category, PoC, among Black, Latinx, and Asian Americans (Pérez, 2021), which implies there may be differences among PoC in whether self-perceived prototypicality moderates the connection between PoC-ID and one's sense of anger and efficacy as a PoC. Using our measure of perceived prototypicality as PoC, we observe clear differences in mean levels of prototypicality among Black ($M = 5.84$, $SD = 1.51$), relative to Latinx ($M = 4.34$, $SD = 2.02$) and Asian ($M = 4.81$, $SD = 1.55$) participants, with Black participants displaying the highest mean and lowest variance. Consistent with this pattern, we find that self-perceived prototypicality does not moderate the relationship between PoC-ID and PoC-anger and PoC-efficacy among Black participants (PoC-anger: .04, $SE = .06$, $p = .434$; PoC-efficacy: –.03, $SE = .05$, $p = .449$). However, among Latinx and Asian participants, perceptions of self-prototypicality do moderate the connections between PoC-anger and PoC-ID (.11, $SE = .03$, $p < .001$) and PoC-efficacy and PoC-ID (.134, $SE = .03$, $p < .001$). Both of these relationships are independent of the covariance between ethnicity and PoC-anger and PoC-efficacy, respectively. These patterns provide clear support for H3 regarding the moderating influence of self-prototypicality perceptions.[2]

Discussion

Our results underscore the mobilizing potential of PoC-ID among Black, Latinx, and Asian Americans, while also demonstrating meaningful differences among these groups. We found that individuals who identify more strongly as PoC express more pro-environmental attitudes and behavioral intentions toward collective action. Second, we observed that the relationships between PoC-ID and attitudinal and behavioral outcomes are mediated by a heightened sense of anger and efficacy as PoC. Finally, we discovered that the connections between PoC-ID and PoC-anger and efficacy depend on the degree to which individuals perceive themselves prototypical PoC. This pattern was most precisely estimated in a model combining our Latinx and Asian samples. We view this evidence as provisional and worthy of additional investigation, going forward. Although we manipulated the emphasis of our mediators (PoC-specific vs. general), the evidence for most pathways is from associations between measured variables. Thus, subsequent research can enhance our understanding in this area by testing causal directions through a longitudinal survey or expanded experimental design.

Although we uncovered evidence for our core hypotheses across three distinct ethno-racial groups, we also detected differences that reflect the unique experiences of each group, especially that of Black Americans in contrast to Latinx and Asian Americans. In doing so, we established how three mechanisms (PoC-anger, PoC-efficacy, and PoC-prototypicality) can unify these diverse groups to work together to address shared disadvantages. Of course, there are possible downsides to the greater unity that a *person of color* identity can produce. One of these is psychological. The cohesion that PoC-ID produces is partly based on the social category's ability to ensure that the unique experiences of each minority subgroup are not drowned out by the perceived needs of the larger common in-group.

This is a challenging feat to sustain, especially when individuals sense that their own subgroup's distinctiveness is threatened by the common in-group, as anticipated by Brewer (1991) and documented among PoC (Pérez, 2021).

Another downside involves potential conflicts over sharing power. Insofar as political leaders and their constituents share an identity as PoC during decision-making, the specific minority subgroup that a leader hails from should, in principle, matter less as the logic of a common in-group suggests that any benefits of in-group favoritism will accrue to all groups sharing the category. Yet some work suggests that if subgroup identities, such as Black, Latinx, or Asian American, are more salient during such political decision-making, cooperative relations between these groups can become conflictual (McClain et al., 2007; Wilkinson, 2015).

We acknowledge that non-White minorities in the United States include other groups besides the three we examined, such as Native Americans and Middle Eastern and North Africans (MENAs). Despite their shared marginalization relative to Whites, communities of color in the United States differ in the sources of their marginalization (Zou & Cheryan, 2017). Consider how MENA people, who are stereotyped as *un-American* and even *terrorists*, are nonetheless positioned between being "not fully White" and not being a "complete racial minority" such as Black Americans and Latinx (Eidgahy, 2021). Hence, it is plausible that, for members of MENA communities and others similar to it, some PoC may not view them as fellow in-group members, even if MENA individuals themselves consider it important to their self-definition. This raises the possibility that peripheral membership as PoC might affect this category's operation (Ellemers & Jetten, 2013)—a consideration worthy of investigation, given the growing ethno-racial diversity of the United States.

This research highlights the potential for a PoC identity to coalesce and mobilize ethno-racial minorities toward collective action to address environmental injustices. We recognize that this collective, similar to others, faces challenges in maintaining a common sense of identity. However, in contrast to other common identities (e.g., Americans), the PoC category is comprised entirely of groups aligned in shared experiences with marginalization (c.f. Dixon et al., 2010; Wright & Lubensky, 2009), making PoC-ID a potentially powerful tool in sustaining marginalized groups in their collective effort to enact social change in communities such as Warren County and beyond.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Jason C. Chin https://orcid.org/0000-0001-6881-6709
Efrén O. Pérez https://orcid.org/0000-0003-4952-5089

Supplemental Material

The supplemental material is available in the online version of the article.

Notes

1. Comparisons of model fit are generally used when differentiating measurement/structural models (Bollen, 1989; Brown, 2006). The main difference here is that we cannot conduct a multigroup analysis because not everyone answered the same versions of the anger and mediation items.
2. If we rerun the same model, separately, in our Asian American and Latinx samples, we find comparable results but less precision, given a reduction in statistical power that results from disaggregating these two samples.

References

Anoll, A. P. (2021). *The obligation mosaic: Race and social norms in U.S. political participation*. University of Chicago Press.

Bastian, B., & Haslam, N. (2008). Immigration from the perspective of hosts and immigrants: Roles of psychological essentialism and social identity. *Asian Journal of Social Psychology*, *11*(2), 127–140.

Benjamin, A. (2017). *Racial coalition building in local elections: Elite cues and cross-ethnic voting*. Cambridge University Press.

Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research*, *17*(3), 303–316.

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Blackwell Science.

Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17(5), 475–482.

Brown, T.A. (2006). *Confirmatory factor analysis for applied research*. Guilford Press.

Chen, J. M., & Ratliff, K. A. (2018). Psychological essentialism predicts intergroup bias. *Social Cognition*, *36*(3), 301–323.

Cortland, C. I., Craig, M. A., Shapiro, J. R., Richeson, J. A., Neel, R., & Goldstein, N. J. (2017). Solidarity through shared disadvantage: Highlighting shared experiences of discrimination improves relations between stigmatized groups. *Journal of Personality and Social Psychology*, *113*(4), 547–567.

Craig, M. A., DeHart, T., Richeson, J. A., & Fiedorowicz, L. (2012). Do unto others as others have done unto you? Perceiving sexism influences women's evaluations of stigmatized racial groups. *Personality and Social Psychology Bulletin*, *38*(9), 1107–1119.

Craig, M. A., & Richeson, J. A. (2012). Coalition or derogation? How perceived discrimination influences intraminority intergroup relations. *Journal of Personality and Social Psychology*, *102*(4), 759–777.

Craig, M. A., & Richeson, J. A. (2016). Stigma-based solidarity: Understanding the psychological foundations of conflict and coalition among members of different stigmatized groups. *Current Directions in Psychological Science*, *25*(1), 21–27.

Danbold, F., & Huo, Y. J. (2021). Welcome to be like us: Expectations of outgroup assimilation shape dominant group resistance to diversity. *Personality and Social Psychology Bulletin*. https://doi.org/10.1177/01461672211004806

Dixon, J., Tropp, L. R., Durrheim, K., & Tredoux, C. (2010). "Let them eat harmony": Prejudice-reduction strategies and attitudes of historically disadvantaged groups. *Current Directions in Psychological Science*, *19*(2), 76–80.

Dovidio, J. F., Gaertner, S. L., & Saguy, T. (2009). Commonality and the complexity of "we": Social attitudes and social change. *Personality and Social Psychology Review*, *13*(1), 3–20.

Eidgahy, K. (2021). *White without privilege: Examining MENA identity as people of color*. Masters' thesis. University of California.

Ellemers, N., & Jetten, J. (2013). The many ways to be marginal in a group. *Personality and Social Psychology Review*, 17(1), 3–21.

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, *53*(1), 161–186. https://doi.org/10.77/1088868312453086

Fowler, J. H., & Kam, C. D. (2007). Beyond the Self: Social identity, altruism, and political participation. *The Journal of Politics*, *69*(3), 813–827.

Fredrickson, G. M. (1999). Models of American ethnic relations: A historical perspective. In D. A. Prentice & D. T. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 23–34). Russell Sage Foundation.

Gaertner, S. L., Dovidio, J. F., Nier, J. A., Ward, C. M., & Banker, B. S. (1999). *Across cultural divides: the value of a superordinate identity*. Russell Sage Foundation.

Huo, Y. J., & Molina, L. E. (2006). Is pluralism a viable model of diversity? The benefits and limits of subgroup respect. *Group Processes & Intergroup Relations*, *9*(3), 359–376. https://doi.org/10.1177/1368430206064639

Jost, J. T., & Hunyady, O. (2003). The psychology of system justification and the palliative function of ideology. *European Review of Social Psychology*, *13*(1), 111–153. https://doi.org/10.1080/10463280240000046

Kim, C. J. (1999). The racial triangulation of Asian Americans. *Politics & Society*, *27*(1), 105–138.

Lazri, A. M., & Konisky, D. M. (2019). Environmental attitudes across race and ethnicity. *Social Science Quarterly*, *100*(4), 1039–1055. https://doi.org/10.1111/ssqu.12626

Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., Ouwerkerk, J. W., & Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, *95*(1), 144–165.

Masuoka, N. R., & Junn, J. (2013). *The politics of belonging: Race, public opinion, and immigration*. https://press.uchicago.edu/ucp/books/book/chicago/P/bo16095740.html

McClain, P. D., Lyle, M. L., Carter, N. M., DeFrancesco Soto, V., Lackey, G. F., Davenport Cotton, K., Nunnally, S. C., Scotto, T. J., Grynaviski, J. D., & Kendrick, J. A. (2007). Black Americans and Latino immigrants in a southern city: Friendly neighbors or economic competitors? *Du Bois Review*, *4*, 97–117.

McGurty, E. M. (1997). From NIMBY to civil rights: The origins of the environmental justice movement. *Environmental History*, 2, 301–323.

Mohai, P., & Bryant, B. (1998). Is there a" race" effect on concern for environmental quality? *Public Opinion Quarterly*, *62*, 475–505.

Olson, M. (1965). *The logic of collective action: Public goods and the theory of groups*. Harvard University Press.

Osborne, D., Jost, J. T., Becker, J. C., Badaan, V., & Sibley, C. G. (2019). Protesting to challenge or defend the system? A system justification perspective on collective action. *European Journal of Social Psychology*, *49*(2), 244–269.

Pérez, E. O. (2021). *Diversity's child: People of color and the politics of identity*. The University of Chicago Press.

Riker, W. H., & Ordeshook, P. C. (1968). A theory of the calculus of voting. *American Political Science Review*, *62*(1), 25–42.

Schmitt, M. T., & Branscombe, N. R. (2001). The good, the bad, and the manly: Threats to one's prototypicality and evaluations of fellow in-group members. *Journal of Experimental Social Psychology*, *37*(6), 510–517. https://doi:10.1006/jesp.2001.1476

Sears, D. O., & Savalei, V. (2006). The political color line in America: Many "peoples of color" or Black exceptionalism? *Political Psychology*, *27*(6), 895–924.

Seger, C. R., Smith, E. R., & Mackie, D. M. (2009). Subtle activation of a social categorization triggers group-level emotions. *Journal of Experimental Social Psychology*, *45*(3), 460–467.

Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge University Press.

Song, H., Lewis, N. A., Jr Ballew, M. T., Bravo, M., Davydova, J., Gao, H. O., Garcia, R. J., Hiltner, S., Naiman, S. M., Pearson, A. R., Romero-Canyas, R., & Schuldt, J. P (2020). What counts as an "environmental" issue? Differences in issue conceptualization by race, ethnicity, and socioeconomic status. *Journal of Environmental Psychology*, *68*, 101404.

Tang, E. (2011). A gulf unites us: The Vietnamese Americans of Black New Orleans East. *American Quarterly*, *63*(1), 117–149.

Tessum, C. W., Apte, J. S., Goodkind, A. L., Muller, N. Z., Mullins, K. A., Paolella, D. A., Polansky, S., Springer, N. P., Thakrar, S. K., Marshall, J. D., & Hill, J. D. (2019). Inequity in consumption of goods and services adds to racial–ethnic disparities in air pollution exposure. *Proceedings of the National Academy of Sciences*, *116*(13), 6001–6006.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.

Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, *20*(5), 454–463.

United Church of Christ, Commission for Racial Justice. (1987). *Toxic wastes and race: A national report on the socio-economic characteristics and communities with hazardous waste sites*. https://www.nrc.gov/docs/ML1310/ML13109A339.pdf

U.S. Census Bureau. (2020). *2019 American Community Survey Selected Population Profiles*. Retrieved from https://www.census.gov/programs-surveys/acs/data/data-tables.html

U.S. Environmental Protection Agency. (2021). *Climate change and social vulnerability in the United States: A focus on six impacts*. https://www.epa.gov/system/files/documents/2021-09/climate-vulnerability_september-2021_508.pdf

van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, *134*(4), 504–535.

van Zomeren, M., Spears, R., Fischer, A. H., & Leach, C. W. (2004). Put your money where your mouth is! Explaining collective action tendencies through group-based anger and group efficacy. *Journal of Personality and Social Psychology*, *87*(5), 649–664.

Waldzus, S., Mummendey, A., Wenzel, M., & Weber, U. (2003). Towards tolerance: Representations of superordinate categories and perceived ingroup prototypicality. *Journal of Experimental Social Psychology*, *39*(1), 31–47.

Wilkinson, B. C. (2015). *Partners or rivals? Power and Latino, Black and White relations in the 21st century*. University of Virginia Press.

Wright, S. C., & Lubensky, M. E. (2009). The struggle for social equality: Collective action versus prejudice reduction. In S. Demoulin, J. Leyens, & J. F. Dovidio (Eds.), *Intergroup misunderstandings: Impact of divergent social realities; intergroup misunderstandings: Impact of divergent social realities* (pp. 291–310). Psychology Press.

Zou, L. X., & Cheryan, S. (2017). Two axes of subordination: A new model of racial position. *Journal of Personality and Social Psychology*, *112*, 696–717. http://dx.doi.org/10.1037/pspa0000080

Author Biographies

Jason C. Chin is a PhD student in psychology at the University of California, Los Angeles.

Gustavo A. Mártir Luna is a PhD student in psychology at the University of California, Los Angeles.

Yuen J. Huo is a full professor of psychology at the University of California, Los Angeles.

Efrén O. Pérez is a full professor of psychology and political science at the University of California, Los Angeles.

Handling Editor: Christopher Federico