Trait Mindfulness Predicts Helping Behavior toward Racial Ingroup and Outgroup Members

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Abstract

A study examined whether trait mindfulness would increase spontaneous helping behavior toward racial outgroup members (*vs* ingroup members). Self-identifying White participants scoring higher in basic trait mindfulness more frequently helped both racial outgroup and ingroup members in two randomly assigned lab-based helping simulations: (1) giving one's seat to a person on crutches or (2) aiding an experimenter in picking up dropped consent forms. Men were 3.70 times as likely to help than women. Discussion focuses on the role of individual differences in mindful attention deployment in helping.

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Ample research demonstrates that prosocial behavior is enacted preferentially (Kurzban, et al., 2015). Across societies, one social ingroup/outgroup division is often based on race, and in many circumstances, people are generally less likely to help racial outgroup members in need than ingroup members (e.g., Saucier, et al., 2005). The question of how to increase rates of interracial prosocial behavior is an abiding concern to many civic-minded people and is of considerable interest to social scientists.

Present Research

Perspectives on the motivated nature of helping behavior are key to understanding how personal factors shape it (Penner et al., 1995). Others' suffering is often painful to observe or may lead to cognitive, affective, or social costs for the self (Cameron et al., 2019; Zaki, 2014), and so people regulate their emotions by avoiding empathy-inducing situations or stimuli. Trait mindfulness, conceptualized as the tendency to deploy present-centered attention and awareness in daily life, is associated with emotion regulation and well-being outcomes (Creswell et al., 2007; Way et al., 2010), and trait mindfulness predicts higher helping behavior and prosocial emotions in lab-based contexts (Berry et al., 2018; Cameron & Fredrickson, 2015). Extending this work, this experiment examined whether a basic form of trait mindfulness predicts higher helping behavior toward racial ingroup and outgroup members. Trait mindfulness can be enhanced via mindfulness (and various other forms of) meditation training (Quaglia et al., 2016), so this study may have implications for mindfulness training in intergroup prosociality.

Self-identifying White participants were randomized to one of two simulations of helping situations that commonly occur in public. In these simulations, bystanders were present who did nothing to help. These procedural controls are known to suppress helping behavior (Darley & Latané, 1968), and exacerbate preferential helping of ingroup members in interracial contexts (Gaertner et al., 1982). We examined whether higher levels of self-reported trait mindfulness, measured after the simulations, would be related to greater helping toward Black (*vs* White) targets.

Method

Participants

Based on previous research on the role of dispositional mindfulness in helping behavior toward strangers (Berry et al., 2018), a recruitment stopping criterion of 160 participants was chosen. In fall 2015, self-identifying White undergraduates ($N = 160$) from Virginia Commonwealth University (VCU) participated in the study in exchange for course credit. Participants who had recently experienced a traumatic life event ($n = 20$) were screened out of the study due to an adverse reaction to the study deception technique during pre-pilot testing. One participant was suspicious of study procedures, so their data were excluded from analyses. The remaining 139 participants were on average 20.40 ($SD = 2.29$) years of age (77.7% female).

Procedure

The VCU Institutional Review Board approved the study procedure (Protocol Number: HM20003829; Approval Date: 02/06/2015). Participants reported individually to the laboratory. An experimenter led them into a waiting room where two ostensible participants (confederates) were seated in two of three chairs. The experimenter asked the participant to be seated while they prepared the experiment rooms. While waiting, each participant was randomized to receive one of the following scenarios: (1) the female experimenter returned and ostensibly accidentally dropped a large stack of informed consent documents onto the floor (modified from Latané & Dabbs, 1975); or (2) another ostensible female participant walked into the waiting room on crutches and leaned uncomfortably against the wall (cf., Condon et al., 2013). In these scenarios, helping behavior was defined as aiding the experimenter by picking up the dropped papers and offering one's seat to the individual on crutches, respectively. The race of the person needing help (Black or White) was also randomized. If one minute passed with no help given, the scenario was terminated. Participants were then escorted to a lab room and self-reported basic trait mindfulness (Brown & Ryan, 2003). To test the incremental validity of trait mindfulness, racism (Henry & Sears, 2002), agreeableness (Costa & McCrae, 1992), empathy (Davis, 1983), and social desirability (Reynolds 1982) were measured and statistically controlled.

Psychological Trait Measures

Mindfulness

The 15-item Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) tapped the frequency of mindful states in daily life on a 6-point Likert-type scale ('almost always' to 'almost never').

Empathy

The Interpersonal Reactivity Index (IRI; Davis, 1983) assessed trait empathy on a 5-point Likert-type scale ('does not describe me well' to 'describes me very well'). The 7-item *fantasy* subscale assessed the tendency to adopt the point of view of fictional characters. The 7-item *empathic concern* subscale assessed felt sympathy or compassion for suffering others. The 7-item *personal distress* subscale assessed emotional discomfort in the presence of others' distress or suffering. The seven-item *perspective taking* subscale assessed the tendency to adopt others' points of view.

Agreeableness

The 12-item *agreeableness* personality dimension subscale of the NEO-FFI (Costa & McCrae, 1992) assessed agreeableness on a 5-point Likert-type scale ('strongly disagree' to 'strongly agree').

Racial prejudice toward Black and African American Individuals

The 8-item Modern Racism Scale (Henry & Sears, 2002) assessed racial prejudice on a 4-point Likert-type scale (one item is on a 3-point Likert-type scale). Because most individuals endorse egalitarian attitudes, and do not explicitly endorse racially prejudiced attitudes, the measure combines prejudiced statements with those that convey perceived social and political justice.

Social desirability

The 11-item Social Desirability Scale (SDS; Reynolds, 1982) modified from the 33-item Marlowe-Crowne Social Desirability Scale (Crowne & Marlow, 1960) measured socially desirable response tendencies with true/false questions. Higher scores indicate the tendency to respond disingenuously.

Results

Race and Scenario Effects on Prosocial Behavior

Analyses were conducted in SPSS (version 26) and data are publicly available (<https://osf.io/ax3m4/>). The experimental effects of help target race (White = 0; Black = 1) and helping scenario (crutches = 0; paper drop = 1) on helping behavior were tested in separate chi-square analyses. As shown in Table 1, helping behavior was not associated with these experimental manipulations. Additional chi-square analyses revealed that participant sex (female = 0; male = 1) was a significant predictor of helping behavior, $\chi^2(1) = 5.555, p = .018, \phi = .200$, but participants' use of technology when the confederate left the room (e.g., using phone or laptop; 0 = not using; 1 = using) did not predict helping behavior, $\chi^2(1) = .808, p = .369, \phi = -.076$. Males were three times as likely to help than females, $OR = 3.09, 95\% CI = [1.173, 8.149]$.

Table 1

Pilot Study 1 chi-square results showing prediction of helping behavior by confederate race and helping scenario

Outcome	White		Black		Crutches Scenario		Papers Scenario	
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected
Help	44	47.6	43	39.4	42	44.4	45	42.6
Did not help	32	28.4	20	23.6	29	26.6	23	25.4

Note. Neither confederate race, $\chi^2(1) = 1.579, p = .209, \phi = .107$, nor helping scenario predicted helping behavior, $\chi^2(1) = .731, p = .392, \phi = .073$.

Trait Mindfulness and Psychological Traits Associations with Prosocial Behavior.

Prior to analyses, variables were checked for univariate and multivariate normality, and the assumption of linearity in the logit was checked. A three-block hierarchical binary logistic regression

model tested the prediction of interracial helping. In block 1, participant technology use during the scenario, the sex of the participant, the race of the helping recipient, scenario type, trait agreeableness, dispositional racism, trait empathy, and social desirability were loaded. Trait mindfulness was loaded into block 2, and the trait mindfulness x race of the helping recipient interaction term was loaded into block 3. As shown in Table 2, the sex of the participant, trait agreeableness, and trait mindfulness were significant predictors of helping. Participant technology use during the scenario, the race of the helping recipient, scenario type, racism, trait empathy, social desirability, and the mindfulness x race of the helping recipient interaction were not meaningful predictors of helping behavior ($ps \geq .086$). For every one-point increase in MAAS scores, participants were 3.46 times as likely to help. Every one-point increase in agreeableness predicted a 2.74-fold increase in the odds of helping, and males were 3.70 times as helpful as females. Block 0 represents helping rates with no predictors in the model; helping occurred in 62.6% of cases, and thus the odds of helping were 67% higher than not helping before including predictors.

Table 2

Three-block hierarchical logistic regression results showing prediction of scenario-based helping by technology use, participant sex, help recipient race, scenario, and psychological traits, including mindfulness

Block	Predictor	$\chi^2(1)$	<i>p</i>	OR	95% CI(OR)	df	$\Delta\chi^2$	<i>p</i>	<i>R</i> ²
0	Intercept	8.621	.003	1.67					
1	Intercept	2.445	.040	1.63		11	21.14	.032	.192
	Tech	.61	.433	.70	[.29, 1.70]				
	Sex	6.08	.014	.27	[.09, .76]				
	Race	.76	.383	1.43	[.64, 3.18]				
	Scenario	.83	.305	1.44	[.66, 3.16]				
	NEO-A	5.70	.017	2.74	[1.20, 6.27]				
	MRS	.09	.759	1.12	[.53, 2.36]				
	IRI-FS	.35	.551	.98	[.91, 1.05]				
	IRI-PT	1.34	.248	.95	[.88, 1.04]				
	IRI-EC	.48	.490	1.04	[.94, 1.15]				
	IRI-PD	1.34	.286	.95	[.89, 1.03]				
	SDS	.56	.455	.92	[.75, 1.14]				
2	MAAS	13.79	<.001	3.46	[1.80, 6.70]	1	16.77	<.001	.325
3	MAAS X Race	2.94	.086	.32	[.09, 1.18]	1	3.05	.081	.348

Note. The table presents odds ratios (*OR*) with 95% confidence intervals for the binary helping outcome.

Parameter estimates are from the model including blocks 1, 2, and 3, and model summary statistics are from the respective blocks. Tech = technology use during the scenario and is coded as 0 = no use; 1 = use. Sex is coded as 1 = female; 0 = male. Target race is coded as 0 = White; 1 = Black. Scenario is coded as 0 = crutches; 1 = paper drop. MAAS = Mindful Attention Awareness Scale; NEO-A = NEO Agreeableness subscale; MRS = Modern Racism Scale; IRI = Interpersonal Reactivity Index; -FS = Fantasy subscale; -PT = Perspective Taking subscale; -EC = Empathic Concern subscale; -PD = Personal Distress subscale; SDS = Social Desirability Scale.

Although the mindfulness x race of the helping recipient interaction did not predict helping behavior ($p = .086$), we explored conditional effects of trait mindfulness on helping at the levels of same- and other-race help recipients using Model 1 of the Hayes PROCESS Macro (Hayes, 2017).

Unstandardized estimates and the lower and upper bound of the 95% confidence intervals of the conditional effects were exponentiated to calculate odds ratios and their confidence intervals. Trait mindfulness predicted higher odds of helping behavior when the help recipient was a racial ingroup member (White), $b = 1.54$, $SE(b) = .43$, $z = 3.57$, $p < .001$, $OR = 4.66$, 95% $CI = [2.00, 10.87]$; for every one-point increase in trait mindfulness, people were 4.66 times as likely to help a racial ingroup member. Trait mindfulness was less strongly, but still significantly related to helping behavior when the help recipient was a racial outgroup member (Black), $b = .86$, $SE(b) = .42$, $z = 2.07$, $p = .039$, $OR = 2.36$, 95% $CI = [1.04, 5.34]$, but did not meaningfully differ from the slope in the racial ingroup member condition, $z = 1.14$, $p = .258$ (see Figure 1).

Figure S1

Graphic depiction of trait mindfulness – helping behavior relation toward Black (other race) and White (same race) confederates.

Note. MAAS = Mindful Attention Awareness Scale. Low and High MAAS represent effects at ± 1 standard deviation away from the mean of MAAS.

Discussion

People in modern societies have regular contact with those of other races and tend to reject overtly prejudiced sentiments (Pearson, Dovidio, & Gaertner, 2009), yet interracial prosocial behavior continues to be less frequent than that directed toward racial ingroup members (Saucier, 2015). This study asked whether trait mindfulness would predict interracial helping behavior in real-world simulations. In line with our hypothesis, trait mindfulness predicted higher levels of helping behavior of racial outgroup members. This finding is consistent with previous research (Berry et al., 2018; Cameron & Fredrickson, 2015) and mindfulness theory (Berry & Brown, 2017; Kang et al., 2013) proposing that mindfulness may promote intergroup prosociality.

Contrary to our predictions, the race of the help target was not a significant predictor of helping behavior. One explanation for this finding is that people will sometimes help racial ingroup and outgroup members at equal rates, but for different reasons (Stürmer & Siem, 2017; Richeson & Shelton, 2003). White individuals will help racial outgroup members at lower rates than ingroup members when there are non-racist factors present that would justify not helping (Dovidio & Gaertner, 2000; Saucier et al., 2005). For instance, people show preferential helping of ingroup members in emergency situations (Kunstman & Plant, 2008) and when bystanders are present (Gaertner et al., 1982). Although the simulations in this study included bystanders, participants may not have perceived the help targets as social outgroup members. Helping responses in the scenarios could be determined by whatever social category was salient at the time help was given (Mitchell et al., 2003); participants may have perceived help targets as fellow classmates or students enrolled at the same school.

Rates of helping did not differ across the two types of helping scenarios. Consistent with previous research (e.g., Graziano et al., 2007), agreeableness predicted higher odds of helping behavior toward racial ingroup and outgroup members. Additionally, males were more helpful than females toward the female help targets in this study. Biological sex is a salient social category with different roles in helping contexts. It is possible that helping behavior enacted by males in this study is patronizing (Vescio et al.,

2005). Future research should consider holding the sex of participants and help targets constant as a procedural control for ambiguous helping motives.

Conclusion

This research demonstrates that a basic form of trait mindfulness predicts higher rates of helping behavior toward strangers regardless of their racial ingroup/outgroup status. Future research should consider if mindfulness training can enhance intergroup prosociality and how mindfulness and its training improve rates of interracial helping behavior. For example, social emotion regulation (Quaglia et al., 2019), awareness of bias (Kang et al., 2013; Papies & Barsalou, 2012), and/or reduction of social identification (Berry & Brown, 2017) are putative mechanisms of this effect.

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