Article

Anger as a catalyst for change? Incremental beliefs and anger's constructive effects in conflict

Eric Shuman,[1] Eran Halperin,[1,2] and Michal Reifen Tagar[1,2]

Abstract

The traditional understanding of the role of anger in conflicts is that it leads to aggressive actions that escalate conflict. However, recent research has found that under certain circumstances anger can have constructive effects such as increasing support for more risky conciliatory steps in negotiation. The current study aims to identify a psychological moderator that determines whether anger has such destructive or constructive effects. We propose that people's beliefs about the malleability of groups (i.e., implicit theories about groups) moderate whether anger leads to conciliatory, constructive behaviors or destructive, aggressive behaviors. We test this hypothesis in two different contexts (a) race relations in the US in the context of recent protests against police brutality, and (b) the Israeli–Palestinian conflict. Results indicated that induced anger (compared to control condition) increased support for aggressive policies for participants who believed that groups cannot change. In contrast, for those who believed groups can change, inducing anger actually increased support for conciliatory policies compared to a control condition. Together, this indicates that anger can have constructive effects in conflict when people believe that groups can change.

Anger is often seen as a destructive emotion in intergroup conflict, causing aggressive behavior that escalates conflicts (Cheung-Blunden & Blunden, 2008; Huddy, Feldman, & Cassese, 2007). However, a growing body of interpersonal and intergroup psychological research has begun to challenge this view. Drawing from the perspective that emotions can elicit multiple situation-dependent behaviors to achieve identical emotional goals, this research has shown that anger can lead to conciliatory behaviors in specific situations (Fischer &

Roseman, 2007; Halperin, Russell, Dweck, & Gross, 2011; Reifen Tagar, Federico, & Halperin, 2011). However, understanding the underlying

[1]Interdisciplinary Center Herzliya, Herzliya, Israel
[2]Interdisciplinary Center Herzliya, Israel

Corresponding author:
Michal Reifen Tagar, The Baruch Ivcher School of Psychology, IDC, Herzliya, Kanfei Nesharim Street, Israel 46150.
Email: michal.reifen@idc.ac.il

psychological factor that moderates the behavioral outcomes of anger remains an important unaddressed issue. We propose that in intergroup conflicts, people's implicit beliefs about whether groups can change can determine if anger leads to constructive or destructive behavioral intentions.

Anger in Intergroup Conflict

According to appraisal theories of emotion, anger is elicited from the appraisal that an unfair or unjust act has been committed against oneself or one's group (Averill, 1982; Mackie, Devos, & Smith, 2000). As a result, anger has been found to be an approach emotion with the emotional goal to correct or redress the perceived wrongdoing or injustice (Carver & Harmon-Jones, 2009; Fischer & Roseman, 2007). These characteristics often lead to an action tendency to confront (Berkowitz, 1993; Mackie et al., 2000), hit, or attack the anger-evoking target (Roseman, Wiest, & Swartz, 1994). Therefore, many studies of anger in intergroup conflicts have found a connection between anger and aggressive, retaliatory behaviors, such as the use of military force (Cheung-Blunden & Blunden, 2008; Lerner, Gonzalez, Small, & Fischhoff, 2003; Mackie et al., 2000). However, anger's approach tendencies, its association with high levels of efficacy and certainty, as well as optimism and risk-taking, led researchers to hypothesize that anger might have more diverse response tendencies (Fischhoff, Gonzalez, Lerner, & Small, 2005; Lerner & Keltner, 2001).

For example, some of early research on anger found that anger was equally associated with conciliatory and aggressive action tendencies (Averill, 1982). In interpersonal research, anger can lead to reconciliation and relationship improvement over the long term (Fischer & Roseman, 2007). In intergroup conflicts, anger has been associated with two contradictory action tendencies: support for violent action and support for educational channels to create perceptual change (Halperin, 2008). Based on this characterization of anger as a pluripotent emotion, researchers hypothesized that under certain circumstances anger would actually lead to more support for

conciliatory policies or compromise in conflict. Reifen Tagar et al. (2011) found that in the context of efforts to de-escalate a conflict, anger led to increased support for positive risk-taking and nonviolent actions, but only if it is the sole "approach" option offered to participants. Further, Halperin, Russell, Dweck, et al. (2011) showed that anger in the context of negotiations can increase support for compromise, providing that long-term levels of hatred towards the outgroup are low.

Together this research strengthens the argument that, even in intergroup conflicts, anger can lead to many behavioral intentions, both aggressive and conciliatory, in an attempt to achieve the emotional goal of correcting wrongdoing. In addition, it suggests that certain situations (namely de-escalation and negotiations) can make anger's conciliatory behavioral intentions more likely. However, this research has not addressed the psychological factors that explain when people will support aggressive or conciliatory policies as a result of their anger. Identifying these psychological factors that allow anger to drive conciliatory behavioral intentions is of great importance for understanding the role of anger in intergroup conflicts, and when it leads to support for constructive policies.

Implicit Theories as a Secondary Appraisal of Anger

To understand the pluripotent nature of anger, we draw from appraisal theories of emotion (e.g., Frijda, 1993; Roseman, 1984, 2001; Scherer, Schorr, & Johnstone, 2001), which argue that differences in the "downstream" aspects of emotion, that is, emotional experience, action tendencies, etcetera, flow from differences in appraisals. We propose that individuals' implicit theories about groups, that is, personal beliefs about whether the attitudes and behavior of groups are malleable (an incremental theory) or fixed (an entity theory; Dweck, 1999; Dweck, Chiu, & Hong, 1995; Rydell, Hugenberg, Ray, & Mackie, 2007), lead them to appraise possible responses to anger inducing events differently.

Implicit theories are people's lay beliefs about the possibility of change in a given target, and thus are one of the core assumptions people use to understand, interpret, and predict human behavior (Dweck et al., 1995). Implicit theories are generally stable over time, although recent research has highlighted interventions that can induce an incremental mindset (Blackwell, Trzesniewski, & Dweck, 2007; Halperin, Russell, Trzesniewski, Gross, & Dweck, 2011). While the majority of research on implicit theories focuses on the malleability beliefs about human nature (e.g., Chiu, Hong, & Dweck, 1997), studies have also investigated implicit theories about social groups (e.g., Rydell et al., 2007). In particular, implicit theories about groups have already been shown to play an important role in intergroup conflicts, mainly through their effects on hope and hatred. Both of these emotions are based on an appraisal of the ability (or inability) of the target to change. As a result, incremental theories have been associated with increased hope and decreased hatred, and thus increased support for compromise and reconciliation (Halperin, 2008; Halperin & Gross, 2011; Cohen-Cohen, Halperin, Crisp, & Gross, 2014). While implicit theories are strongly related to these two emotions, they are empirically and conceptually distinct from both emotions. Implicit theories are related to key appraisals of these emotions, but, as emotions, hatred and hope encapsulate affective responses and behavioral intentions, both of which implicit theories lack. In addition, hope is more strongly associated with implicit theories about the world or the conflict in general, rather than implicit theories about groups (Cohen-Chen, Crisp, & Halperin, 2015).

Despite its connections with powerful emotions in intergroup conflicts, the effect of implicit theories about groups on anger has not yet been examined. Since the malleability of the target is not a key appraisal of anger, we do not expect implicit theories will have a direct effect on anger. Rather we hypothesize that it serves as a secondary appraisal that affects the behavioral intentions associated with anger. Specifically, we hypothesize that people with incremental versus entity beliefs about groups will chose different means of pursuing anger's emotional goal of correcting wrongdoing. Anger drives everyone to want to correct the perceived wrongdoing that caused their anger, however they may chose different means of doing so based on their underlying assumptions and appraisals of the anger-inducing target and correspondingly of the potential consequences of alternative options for action. We hypothesize that those who hold incremental beliefs about groups will support conciliatory policies aimed at addressing the root issues that led to the anger-inducing event and prompting the offending outgroup to change their behavior. But those who see change in the group as unlikely or impossible—entity theorists—should be more likely to support aggressive policies aimed at retaliating and/or punishing the offending group. Both these behavioral intentions, retaliation as well as constructive changes, address the emotional goal of correcting wrongdoing; but they reflect different assumptions about the most effective way of achieving this goal based on the perceived possibility of change in the outgroup. If one believes that change in the outgroup is possible, then the corrective motivation of anger will lead to efforts to facilitate change in their behavior or address the underlying problems that caused the violation, but if one does not believe change is possible, then the only reasonable response is aggression to retaliate for and punish the offense. Thus, we hypothesize the people's implicit theories about groups will moderate the type of anger-driven response.

The Current Study

We tested this hypothesis in two different intergroup conflict contexts: (a) race relations in the United States in light of growing unrest surrounding police violence and institutional racism; (b) the Israeli–Palestinian conflict, specifically relations between Jewish and Palestinian citizens of Israel. In both studies, members of the high-power group (White Americans or Jewish Israelis) either read a neutral or anger-inducing article and then reported their emotions and support for various

policy options directed at the outgroup. We measured implicit theories about groups as a continuous moderator, such that entity/incremental theorists were evaluated as ± 1 *SD* from the mean. We hypothesized that for incremental theorists, the anger-inducing condition would increase their support for conciliatory policies compared to the control condition, whereas for entity theorists support for aggressive policies would be higher in the anger condition than the control condition. In order to fully test these hypotheses, it is important to show the effect of implicit theories above and beyond both the long-term sentiment of hatred and political ideology. Prior research has shown emotional sentiments (stable general emotional dispositions towards a target) can affect the expression of emotions (multicomponential responses to a specific event), specifically that anger can have constructive effects in the absence of a long-term sentiment of hatred (Frijda, 1994; Halperin, Russell, Dweck, et al., 2011; Halperin & Gross, 2011). Thus, it is important to show that implicit theories have an impact over this already documented effect. In addition, the policies one supports in intergroup conflicts are strongly predicted by one's political ideology, which psychologists have defined as a interrelated set of attitudes, values, and beliefs with cognitive, affective, and motivational properties which inform how individuals view the social and political world (Bar-Tal, Raviv, Raviv, & Dgani-Hirsch, 2009; Cohrs, 2012; Jost, Frederico, & Napier, 2009). Therefore, we also controlled for political ideology to demonstrate that the effect of anger was significant above and beyond the effect of ideology.

Study 1

In the first study, we aimed to demonstrate that anger can have constructive effects for incremental theorists even in a conflict in a phase of escalation, because previous research has only found constructive effects of anger in de-escalatory stages of conflict (Halperin, Russell, Dweck, et al., 2011; Reifen Tagar et al., 2011). While relations and inequalities between Black and White Americans have been a long-standing issue in the

United States, there was a perception among many observers that with the election of President Obama, America was moving towards a postracial society and these issues were fading into the background (Lum, 2009). However, the killings of unarmed African Americans by the police, beginning with Trayvon Martin and Freddie Gray, have thrust still extant racial inequalities and institutional racism back into the nation's attention. Further, these events and others have sparked large-scale unrest across the country ranging from nonviolent demonstrations to sometimes violent riots. As a result, we sought to examine the interaction between implicit theories and anger in the context of this currently escalating intergroup conflict.

Method

Participants and procedure. Participants were 274 Americans recruited through Amazon's Mechanical Turk. After participants completed the informed consent, they were randomly assigned to read either an anger-inducing article or a neutral control article regarding the movement against institutional racism and police brutality among African Americans. After reading the article they completed, in this order, the measures of anger towards African Americans, emotional sentiments towards African Americans, support for conciliatory policies, demographic measures, and the measure of implicit theories about groups. Because this was an online survey, we checked the data for quality and excluded those who failed a simple reading check question ($n = 10$). In addition, we found and excluded outliers (more than 3 *SD*s above or below the mean) on time reading the article and on several measures ($n = 16$). This left a sample of 248 self-defined White Americans (50.2% female, $M_{age} = 38.44$; 39% conservative, 24.7% moderate, and 36.3% liberal).

Materials and measures

  Anger manipulation. Participants were randomly assigned to read one of two articles, one of which was designed to induce anger towards African Americans. The anger-inducing article

described a radical protest by African Americans in Baltimore against institutional racism and police brutality that eventually degraded into a violent riot. Anger appraisals of unjust wrongdoing were emphasized by describing how the (fictional) protest occurred "just two days after a career criminal gunned down a police officer," while the city and his fellow officers were still mourning. In addition, protestors were quoted as unfairly characterizing all police officers as murderers, for example, "Am I sad a police officer was killed this week? Of course not, that just means one less murderer on our streets." The neutral article simply described the fact that the issues of institutional racism and police violence had recently come to the forefront of policy debates in the US and would likely continue to be important issues in the near future.

Anger. Anger towards African Americans was measured with a five-item scale including "Demonstrations by African Americans make me angry" and "I feel furious when African Americans criticize America" (α = .90). Participants were asked to indicate the degree to which they agreed with the statements on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*).

We assessed the emotional sentiment of hatred with one item.[1] Participants were asked to indicate the extent to which they felt this sentiment towards African Americans in general on a 7-point scale (1 = *not at all* to 7 = *a lot*).

Support for conciliatory policies. Two[2] items on a 7-point scale (1 = *not at all* to 7 = *a lot*)—"The criminal justice system in the US should be reformed, reducing sentences and penalties for nonviolent and drug-related offenses which predominately affect African Americans" and "Governments in states and cities where there is unrest should organize meetings between the police and African American communities so each side can hear the others' concerns"—assessed participants' support for conciliatory policies (α = .67).

Demographic indicators. Participants also reported their gender, age, and education. Participants also reported their political ideology by placing themselves on a 7-point scale (1 = *very liberal* to 7 = *very conservative*).

Implicit theories about groups (ITG). Participants then completed the seven-item scale measuring implicit beliefs about groups (see Appendix A) used by Rydell et al. (2007) and Halperin, Russell, Trzesniewski, et al. (2011); for example, "As hard as it is to admit, it is impossible to change the basic traits that characterize different groups and sectors" (α = .90). Answers ranged from 1 (*strongly disagree*) to 6 (*strongly agree*), and the scale was scored so that higher scores indicated more fixed (entity) beliefs.

Results

Preliminary analyses. Means, standard deviations, and correlations among all variables are presented in Table 1. There was a moderate positive correlation between political ideology and implicit theories about groups. In addition, entity theories about groups were positively related to anger, but negatively related to support for conciliatory policies. We then conducted independent samples t tests to determine if the manipulation increased participants' levels of anger towards African Americans. The t test revealed that the anger article successfully increased levels of anger in the anger condition ($M = 4.26$, $SD = 1.45$) compared to the neutral condition ($M = 3.33$, $SD = 1.67$), $t(249) = 4.71$, $p < .001$, $d = 0.58$.[3] There were no significant differences between the conditions on support for conciliatory policies, implicit theories about groups, or political orientation, indicating that the measure of implicit theories was unaffected by the manipulation and thus it was possible to use it as a moderator.

Interaction between anger and ITG on support for conciliatory policies. As a test of our hypothesis that the effect of anger on support for conciliatory policies would depend on participants' implicit theories about groups, we looked to see if there was a significant interaction between condition and implicit theories about groups on support for

Table 1. Bivariate relationships between Study 1 variables.

	M (SD)	1	2	3	4	5
1. Condition (1 = neutral, 2 = anger)	–	–				
2. Implicit theories about groups	3.23 (1.21)	.00	–			
3. Political ideology	3.91 (1.87)	.04	.28**	–		
4. Anger	3.81 (1.62)	.29**	.32**	.49**	–	
5. Hatred	2.43 (1.54)	.23*	.35**	.17**	.51**	–
6. Support for conciliatory policies	5.15 (1.16)	.03	−.49**	−.55**	−.45**	−.31**

*p < .05. **p < .01.

conciliatory policies using Hayes's (2013) PRO-CESS command with 5,000 iterations (Model 1), controlling for political ideology and the sentiment of hatred. There was no effect of condition (β = .05, p = .42), and a significant effect of implicit theories (β = −.47, SE = 0.07, t = −7.07, p < .001, 95% CI [−0.60, −0.34]); there was also a significant effect of ideology (β = −.35, p < .001), and the sentiment of hatred (β = −.21, p < .01). Furthermore, the two-way interaction between condition and implicit theories was significant (β = −.15, SE = 0.06, t = −2.50, p = .01, 95% CI [−0.27, −0.03]). We further investigated this interaction (see Figure 1) by examining the effect of the anger-inducing condition on support for conciliatory polices at various levels of implicit theories. This revealed that the anger condition significantly increased support for conciliatory polices when participants held incremental theories (1 SD below the mean; β = .20, SE = 0.08, t = 2.31, p = .02, 95% CI [0.02, 0.37]), but had no effect when participants held entity theories (1 SD above the mean; β = −.10, p = .24). In addition, further analysis of the simple effects revealed that the effect of implicit theories was significantly stronger in the anger condition (β = −.47, SE = 0.07, t = −6.82, p < .001, CI [−0.62, −0.34]), than in the neutral condition (β = −.24, SE = 0.07, t = −3.54, p < .001, CI [−0.38, −0.11]). When we did not control for political ideology and the sentiment of hatred,[4] we found a similar pattern of results.

This study supported our hypothesis that implicit theories about groups would moderate how anger towards the outgroup would affect relevant policy responses. We found that those with incremental theories became more supportive of conciliatory policies when they were induced to feel anger toward the outgroup, above and beyond the influence of political ideology and the sentiment of hatred. In addition, we found this effect in a currently escalating conflict, as racial issues have recently returned as a central issue and protests about police violence have been growing stronger and more intense over the past few years. Prior research has only found constructive effects for anger during de-escalatory stages of conflict, thus this provides further support for our argument that implicit theories are a psychological moderator of anger that operates above and beyond contextual variables.

However, we have not yet tested our second hypothesis that anger will increase support for aggressive policies only for entity theorists. Furthermore, the fact that conciliatory policies were the only response option in Study 1 leaves room for an alternative explanation. It is possible that since anger is a highly active emotion, participants were extremely motivated to do something, and thus took the only opportunity presented to them—a conciliatory one. Thus, we also aimed to rule out this possibility by presenting both aggressive and conciliatory response options, to show that anger still increased support for conciliatory policies even when aggressive ones were also an option. In addition, we wanted to address a possible alternative explanation to our results in Study 1, that though participants' implicit theories were unaffected by the manipulation, it is possible participants responded with the previous context in
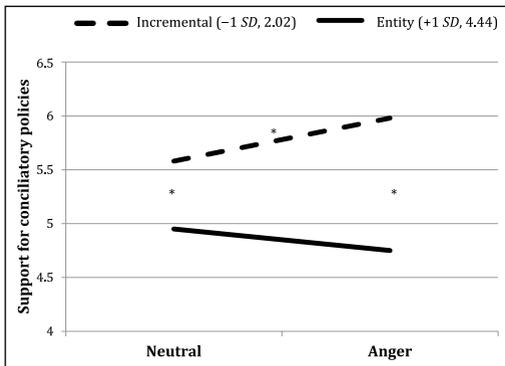
Figure 1. Interaction between condition and ITG on support for conciliatory policies, controlling for political ideology and hatred in Study 1. Asterisks indicate statistically significant effects at the $p < .05$ level.

mind, and thus their responses were affected by their earlier responses. In other words, participants who supported conciliatory policies may have indicated that they believe groups can change in order to appear consistent. Therefore in the next study, we measured implicit theories before the manipulation and dependent measures.

Study 2

We ran a second study in the context of the Israeli–Palestinian conflict, to address these issues. In addition, we chose the Israeli–Palestinian conflict as the context for this study because research has recognized that intractable conflicts, including the Israeli–Palestinian one, are qualitatively different from other types of conflict. Intractable conflicts are characterized by their perceived irresolvability, long duration, a total or zero-sum nature, and their centrality to those involved (Bar-Tal, 1998, 2007, 2010). As such, this context represents the most stringent test of our hypothesis that anger can have constructive effects in intergroup conflicts. Therefore, we conducted this study in the context of the Middle East conflict, by examining relations between Jewish and Palestinian citizens of Israel (also called Arab-Israelis). Palestinian citizens of Israel constitute 19% of the Israeli population and are considered by many of the

Jewish majority to be a hostile minority with loyalties to Israel's enemies (Smooha, 2002).

Method

Participants and procedure. Participants were 207 Jewish-Israelis recruited by an online polling company. After participants completed the informed consent, they completed a measure of their implicit theories about groups. Then they were randomly assigned to read either an anger-inducing article or a neutral control article. After reading the article they completed, in this order, a measure of anger towards Palestinian citizens of Israel, emotional sentiments towards Palestinian citizens of Israel, support for both conciliatory and aggressive policies, and demographic measures. Because this was an online survey we checked the data for quality and excluded those who spent more than 3 SDs above the mean time reading the article, indicating they were distracted. The final sample consisted of 205 Jewish-Israelis (51.2% male, $M_{age} = 40.82$, $SD = 14.41$; 52.7% rightists, 28.3% centrists, and 20% leftists).

Materials and measures

Implicit theories about groups (ITG). Participants then completed a brief three-item version of the scale used in the first study ($\alpha = .70$, see Appendix A).

Anger manipulation. Participants were randomly assigned to read one of two articles, one of which was designed to induce anger towards Palestinian citizens of Israel. The anger-inducing article was based on the anger manipulation used by Porat, Halperin, and Tamir (2016), which described a protest by Palestinian citizens of Israel. The original manipulation described a protest against a war in Gaza, however since there was no war when this study was conducted, the manipulation was adjusted to describe a demonstration against a bill under discussion in the Knesset that would have more strongly defined Israel as a Jewish state. Anger appraisals of unjust wrongdoing and offense were manipulated through a quote from a supposed joint statement of Jewish members of

Knesset, which included "Arab Knesset members have proven today that they and the public they represent have a lack of loyalty. They criticize the state while continuing to live here and take advantage of its services." The neutral article simply described the make-up of the main Arab political party in Israel, which had recently been created through a merger of smaller parties.

Anger. Anger towards Palestinian citizens of Israel was measured with a four-item scale including "I feel furious when Arab-Israelis criticize Israel" and "Demonstrations by Arab-Israelis make me angry" (α = .89). Participants were asked to indicate the degree to which they agreed with the statements on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*).

We assessed the emotional sentiment of hatred with one item.[5] Participants were asked to indicate the extent to which they felt this sentiment towards Arab-Israelis in general on a 7-point scale (1 = *not at all* to 7 = *a lot*).

Support for conciliatory policies. Three items— "The government should increase programs and funding to aid Israeli-Arab businesses and start-ups, and better integrate Israeli-Arab businesses with the mainstream Israeli economy," "The government should increase funding for Arab schools to improve education in the Arab sector, and help solve the problem of overcrowding," and "The government should increase the number of joint Arab-Jewish schools"—assessed participants support for conciliatory policies (α = .81). Participants were asked to indicate how much they supported each policy on a 7-point scale (1 = *not at all* to 7 = *a lot*).

Support for aggressive policies was assessed with a three-item scale: "The protests of Arab-Israelis must be stopped during times of war," "Arab parties and organizations should be outlawed," and "The right of Israeli Arabs to vote in elections should be revoked" (α = .87). Participants also indicated their support on a 7-point scale (1 = *not at all* to 7 = *a lot*).

Demographic indicators. Participants also reported their gender, age, and education. Participants also reported their political ideology on a 7-point scale (1 = *very leftist* to 7 = *very rightist*).

Results

Preliminary analyses. Means, standard deviations, and correlations among all variables are presented in Table 2. There was a moderate positive correlation between political ideology and implicit theories about groups. In addition, entity theories about groups were positively related to anger and support for aggressive policies, but negatively related to support for conciliatory policies. We then conducted independent samples *t* tests to determine if the manipulation increased participants' levels of anger towards Palestinian citizens of Israel. The *t* tests revealed that the anger-inducing article successfully increased levels of anger in the anger condition (M = 4.37, SD = 1.31) compared to the neutral condition (M = 3.78, SD = 1.60), $t(203)$ = 2.90, p = .004, d = 0.40.[6] There were no significant differences between the conditions on support for conciliatory or aggressive policies, implicit theories about groups, or political orientation.

Interaction between anger and ITG on support for conciliatory policies. Based on our hypothesis that the effect of anger on support for conciliatory polices would depend on participants' implicit theories about groups, we investigated if there was a significant interaction between condition and implicit theories about groups on support for conciliatory policies using Hayes's (2013) PROCESS command with 5,000 iterations (Model 1), controlling for political ideology and the sentiment of hatred. There was not a significant direct effect of condition or of implicit theories; but there was a significant effect of ideology (β = −.45, p < .001) and the sentiment of hatred (β = −.31, p < .001). Furthermore, the two-way interaction between condition and implicit theories was significant, (β = .11, SE = 0.05, t = 2.04, p = .04, 95% CI [0.004, 0.21]). We further investigated this interaction (see Figure 2) by examining the effect of the anger-inducing condition on support for conciliatory polices at various levels of implicit theories. This revealed

Table 2. Bivariate relationships between Study 2 variables.

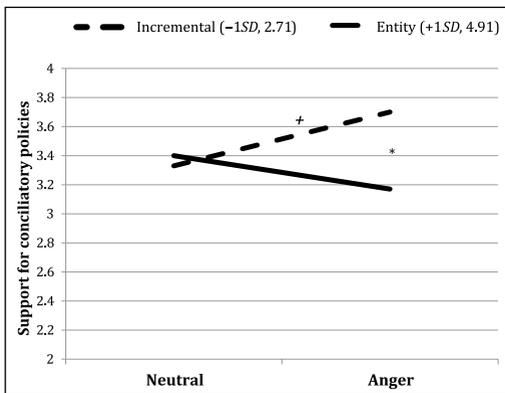|	M (SD)	1	2	3	4	5	6
1. Condition (1 = neutral, 2 = anger)	–	–					
2. Implicit theories about groups	3.81 (1.10)	−.08	–				
3. Political ideology	4.60 (1.29)	−.02	.34**	–			
4. Anger	4.07 (1.49)	.20**	.38**	.63**	–		
5. Hatred	4.34 (1.96)	.09	.33**	.45**	.55**	–	
6. Support for conciliatory policies	3.41 (1.43)	.01	−.33**	−.61**	−.51**	−.53**	–
7. Support for aggressive policies	3.39 (1.56)	.04	.35**	.57**	.61**	.63**	−.69**

*p < .05. **p < .01.

Figure 2. Interaction between condition and ITG on support for conciliatory policies, controlling for political ideology and hatred in Study 2. Asterisks indicate statistically significant effects ($p < .05$), and crosses indicate marginally significant effects ($p < .10$).

that the anger condition marginally increased support for conciliatory policies when participants held incremental theories (1 SD below the mean; $β = .13$, $SE = 0.07$, $t = 1.79$, $p = .07$, 95% CI [−0.01, 0.27]), but had no effect when participants held entity theories (1 SD above the mean; $β = −.08$, $p = .28$). In addition, further analysis of the simple effects revealed that the effect of implicit theories was only significant in the anger condition ($β = −.19$, $SE = 0.08$, $t = −2.45$, $p = .01$, CI [−0.33, −0.04]), not in the neutral condition ($β = .03$, $p = .74$). When we did not control for political ideology and the sentiment of hatred,[7] we found a similar pattern of results.

Interaction between anger and ITG on support for aggressive policies. Next we tested our hypothesis that anger would increase support for aggressive policies, but only for those who held entity beliefs about groups. We used Hayes's (2013) PROCESS command with 5,000 iterations (Model 1) to examine the interaction between condition and implicit theories about groups on support for aggressive policies controlling for political ideology. There was no effect of implicit theories or of condition, but there was a significant effect of ideology ($β = −.47$, $p < .001$) and the sentiment of hatred ($β = .32$, $p < .001$). Furthermore, the two-way interaction was significant, ($β = .10$, $SE = 0.05$, $t = 1.99$, $p = .048$, 95% CI [0.009, 0.20]). We further investigated this interaction (see Figure 3) by examining the effect of the anger condition on support for aggressive polices at various levels of implicit theories. This revealed that anger only increased support for aggressive policies among those who held entity theories about groups (1 SD above the mean; $β = .12$, $SE = 0.07$, $t = 1.74$, $p = .08$, 95% CI [−0.02, 0.26]), and had no effect on those who held incremental theories about groups (1 SD below the mean; $β = −.07$, $p = .29$). In addition, further analysis of the simple effects revealed that the effect of implicit theories was only significant in the anger condition ($β = .16$, $SE = 0.07$, $t = 2.25$, $p = .03$, CI [0.02, 0.31]), not in the neutral condition ($β = −.03$, $p = .64$). When we did not control for political ideology and the sentiment of hatred, we found a similar pattern of results.
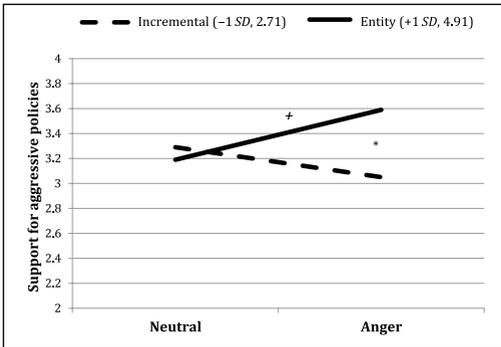
Figure 3. Interaction between condition and ITG on support for aggressive policies, controlling for political ideology and hatred in Study 2. Asterisks indicate statistically significant effects ($p < .05$), and crosses indicate marginally significant effects ($p < .10$).

Discussion

While prior research has shown that in certain situations anger can have constructive effects in conflict, this research aimed to identify a psychological moderator that determines whether anger leads to increased support for conciliatory or aggressive behavioral intentions. In two different conflicts, one undergoing a period of escalation and the other in a period of long-term intractability, we found that when people believe groups can change (incremental theorists) anger increases support for conciliatory policies. In addition, in the second study we showed that anger only increases support for aggressive policies for people who believe groups cannot change (entity theorists). This is in line with prior research that has shown that anger is a multifaceted pluripotent emotion (Halperin, Russell, Dweck, et al., 2011), but identifies implicit theories about groups as a key psychological moderator that can determine the effects of anger in the context of intergroup conflict above and beyond situational variables, political ideology, and sentiments of hatred.

Theoretical and Applied Implications

The current research indicates that implicit theories can play an important role in the process of anger appraisals. Anger is elicited from the appraisal that an unfair or unjust act has been committed against oneself or one's group (Averill, 1982; Mackie et al., 2000), and thus leads to the emotional goal of correcting or redressing the perceived wrongdoing or injustice (Carver & Harmon-Jones, 2009; Fischer & Roseman, 2007). However, there are often many possible options to achieve this goal, and thus people rely on a secondary appraisal to determine how to act on their emotion and pursue its emotional goal (Lazarus, 1991; Thiel, Connelly, & Griffith, 2011). This research indicates that implicit theories about groups serve an important role as this secondary appraisal that affects the behavioral outcomes of anger in intergroup conflicts. In other words, anger as an approach emotion provides energy and motivation to act and correct the actions of another group, and implicit theories determine what kind of actions this motivation eventually drives. Frequently in intergroup conflicts, the belief that the other side is incapable of change is prevalent (Bar-Tal, 2007), and thus anger most often leads to aggressive, retaliatory actions. However, this research indicates that even in conflicts there are people who perceive groups as capable of change, and thus for them anger can have constructive effects. Interestingly, our results show that anger only leads to an increase in support for the chosen policy, and not to a corresponding decrease in the alternative policy. This suggests that anger, as an approach emotion, only affects how people chose to act, and not the response options they chose against.

In sum, this research adds both to the literature on emotions and implicit theories. First, expands on the literature pointing to the pluripotent nature of emotions. Appraisal theories of emotion argue that emotions can elicit multiple situation-dependent behaviors to achieve a goal rooted in the appraisal of a situation (Frijda, 1993; Roseman, 1984, 2001). This study demonstrates that anger has the capability to drive both conciliatory and aggressive behavioral intentions even in the context of conflict. Second, it adds to the literature on implicit theories about groups by showing that it plays an important role as a secondary appraisal to anger that helps determine which behavioral

intention anger increases. On an applied level, this suggests that inducing an incremental mindset may be an effective indirect emotion regulation strategy (see Halperin, Cohen-Chen, & Goldenberg, 2014) for anger, redirecting it so that it promotes conciliatory rather than aggressive policies.

Limitations and Future Directions

An important limitation of this study is that we measured but did not manipulate participants' implicit theories about groups, and thus cannot directly claim incremental beliefs cause anger's constructive effects. This was in part due to prior research documenting the difficulty of successfully manipulating implicit theories about groups in a 2 x 2 design together with another textual manipulation (see Wohl et al., 2015). In addition, there is already a large body of research demonstrating that inducing incremental theories about groups leads to greater support for conciliatory polices and concession-making in conflicts (Cohen-Chen, Halperin, Porat, & Bar-Tal, 2014; Halperin, Crisp, Husnu, Dweck, & Gross, 2012; Halperin, Russell, Trzesniewski, et al., 2011). Thus we focused on the role of implicit theories as moderator for anger, rather than on changing participants' implicit theories about groups.

In addition, while the data presented here provide strong evidence that implicit theories moderate the behavioral intentions of anger, it is possible that there are other traits or factors that could have similar effects. For example, personal versus situational attributions for wrongdoing might also affect the behavioral intentions of anger, and individuals might have a temperamental tendency to respond with either conciliatory or aggressive behaviors. Future research could continue to examine other possible moderators, and possibly compare their effects.

Further, the mechanism of the effect of implicit theories remains unclear. It seems that implicit theories mainly have an effect through how they color people's perceptions of the outgroup (Halperin, Russell, Trzesniewski, et al., 2011). In conflicts, people tend to see their own

group as willing to change and the intransigence of the outgroup as the main obstacle to reconciliation (Bar-Tal, 2007), thus the conciliatory effects of incremental theories are likely due to a more malleable view of the outgroup. However, implicit theories do refer to groups in general, so it is possible that some of their effects are also due to perceptions of the ingroup as more or less malleable. Further research should explore both of these potential pathways. In addition, this study only examines the effect of anger on immediate behavioral intentions, and thus cannot speak to the durability of these effects. Since the change in support for various policies is driven by the action tendencies associated with anger, it is possible that once this emotion fades, so too will its effects on policy support. However, further research is needed to test the possible long-term effects.

Another limitation of the current study is that, while we examined multiple contexts, we only studied effects on members of the high-power group. Thus, it is possible that these constructive effects of anger are only possible for the higher power group. The conciliatory policies in this study all represented ways to change the situation to address the possible root causes of the anger-inducing actions by the outgroup. It's possible that the low-power group may not feel they have the ability to affect the situation in this way. However, there is some evidence that anger can also have constructive effects for the low-power group. Research on collective action has shown that among low-power groups anger is associated with nonviolent normative collective action, but not violent or nonnormative action (Shuman, Cohen-Chen, Hirsch-Hoefler, & Halperin, 2016; Tausch et al., 2011). Thus, the main difference between high- and low-power groups may not be whether anger can have constructive effects, but whether they are expressed in support for different political policies or different types of collective action.

In sum, the current research indicates that implicit theories about groups act as an important psychological moderator for the impact of anger on intergroup policy preferences, and that when

people believe groups can change, anger can increase support for important conciliatory policies. This supports research showing that anger is a powerful, pluripotent emotion that can have important positive effects. These effects of anger are highly consequential because eventually resolving conflict requires that people overcome apathy and hopelessness and take an active role in pushing change forward. This research indicates that anger can provide the emotional energy for people to support action to address the issues of the conflict, and implicit theories about groups help determine whether these actions are aggressive and retaliatory or conciliatory and aimed at constructively addressing some of the root issues of the conflict. Further, there is increasing evidence that it is possible for psychological interventions to increase belief in possibility of change in intergroup conflicts (Halperin, Russell, Trzesniewski, et al., 2011) thus pointing to a route to redirect anger so that it increases conciliatory rather than aggressive policy preferences in conflict.

Funding

Notes

1. We also assessed the emotional sentiments of fear, hope, and contempt as potential control variables.
2. The scale originally also included the item "States should be required to review their policing policies to find and correct policies that are racially discriminatory," but the reliability of this three-item scale was low ($\alpha = .65$). Therefore, we checked to see if removing any of the items would improve it, and if this item was dropped, the reliability improved ($\alpha = .67$). Therefore we did not include this item in the final analyses (however, including it did not significantly alter the results).
3. Additionally in the anger condition, levels of fear ($M = 3.57$, $SD = 1.76$) and hatred ($M = 2.77$, $SD = 1.67$) were higher than in the neutral condition ($M = 2.84$, $SD = 1.68$; $M = 2.07$, $SD = 1.31$, respectively), $t(249) = 4.37$, $p = .001$, $d = 0.42$; $t(249) = 3.64$, $p < .001$, $d = 0.46$, respectively. However, the effect size for anger was the largest indicating that the manipulation had the strongest effect on anger. In addition, a 2 (Condition: anger, neutral) x 3 (Emotions: anger, fear, and hatred) within-subjects mixed-measures ANOVA revealed a main effect of condition $F(1, 249) = 22.85$, $p < .001$, but more importantly a main effect of emotion type, $F(2, 249) = 92.07$, $p < .001$. Post hoc comparisons showed that participants reported significantly more anger ($M = 3.80$) than fear ($M = 3.20$) or hatred ($M = 2.42$), ps < .001. Taken together, this indicates that the manipulation was successful at increasing anger more so than other negative emotions.
4. Given that prior research (Halperin, Russell, Dweck, et al., 2011) has demonstrated that the sentiment of hatred can also moderate the behavioral intentions of anger, we also tested a model with hatred as the moderating variable. In this model, there is a significant interaction between condition and hatred ($\beta = .13$, $SE = 0.05$, $t = 2.47$, $p = .01$, 95% CI [0.03, 0.24]). However, when implicit theories are included as a covariate, this interaction becomes nonsignificant ($p > .10$). This supports our argument that implicit theories are the more basic and proximal moderator.
5. We also assessed the emotional sentiments of fear, hope, and contempt as potential control variables.
6. In addition, the manipulation did not have a significant effect on hatred or fear.
7. We again tested a model with the sentiment of hatred as the moderating variable. Here hatred was not a significant moderator, although the interaction was trending in this direction ($p < .20$). However, when implicit theories are included as a covariate this trend disappears. This supports our argument that implicit theories are the more basic and proximal moderator.

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Appendix A

Implicit Theories About Groups Scale (Study 1)

1. As much as I hate to admit it, you can't teach an old dog new tricks—groups can't really change their basic characteristics.
2. Groups can do things differently, but the important parts of who they are can't really be changed.
3. Every group or nation has basic moral values and beliefs that can't be changed significantly.
4. Groups that are characterized by violent tendencies will never change their ways.
5. Groups can substantially change the kind of group they are (reversed).
6. Social and political processes can make a difference on the moral and ethical level of companies and nations (reversed).
7. Groups can change even their most basic qualities (reversed).

Implicit Theories About Groups Scale (Study 2)

1. Groups can do things differently, but the important parts of who they are can't really be changed.
2. Every group or nation has basic moral values and beliefs that can't be changed significantly.
3. Groups that are characterized by violent tendencies will never change their ways.