The positive effect of negative emotions in protracted conflict: The case of anger

Michal Reifen Tagar [a,*], Christopher M. Federico [a], Eran Halperin [b]

[a] University of Minnesota, USA
[b] Lauder School of Government, IDC Herzliya, Israel

ARTICLE INFO

ABSTRACT

Extant research has demonstrated the destructive role that anger plays in the context of intergroup conflict. Among other findings, it has been established that anger elevates public support for aggressive and violent actions towards the outgroup. This finding has been explained by the unique cognitive appraisals, emotional goal, and response tendencies associated with anger, typified by appraised relative strength and high control, motivation to correct perceived wrongdoings, and willingness to engage in risky behavior. In the current work we examine an innovative assumption, according to which the apparent destructive implications of anger are a result of situational range restriction—namely, that anger as a group emotion has been examined almost solely at the escalation stage of conflict. Instead, we propose that the same unique characteristics of anger can bring about constructive political attitudes and support for non-violent policies in the context of systematic efforts to de-escalate a protracted conflict.To test this hypothesis we conducted two studies in which we examined the relationship between anger and the willingness to engage in positive risk-taking and support non-violent policies in the context of political negotiations between adversaries. Results indicate a significant positive relationship, supporting the hypothesis that anger is not an exclusively militant emotion, and its effects are situationally dependent.

© 2010 Elsevier Inc. All rights reserved.

Over the last three decades, a growing body of literature has highlighted the importance of emotions in intergroup relations (Iyer & Leach, 2008; Mackie & Smith, 2002; Mackie, Smith, & Ray, 2008). At the same time, the central role of emotions in the dynamics of intergroup conflict is increasingly recognized by scholars in the fields of international relations and conflict resolution (Bar-Tal, Halperin, & De Rivera, 2007; Horowitz, 1985; Mayer, 2000; Petersen, 2002). Among other things, emotions influence support for specific policy preferences regarding an adversary (Halperin, in press; Halperin, Sharvit, & Gross, in press). For example, emotions contribute to decision making about reactions to terror attacks (Cheung-Blunden & Blunden, 2008; Huddy, Feldman, & Cassese, 2007; Lerner, Gonzalez, Small, & Fischhoff, 2003; Skitka, Bauman, Aramovich, & Morgan, 2006) and influence positions on negotiation, peace agreements, and reconciliation (Halperin, in press; Maoz & McCauley, 2009; Tam et al., 2007).

Anger is a central and prevalent emotion in the context of intergroup conflict (Bar-Tal, 2007; Halperin & Gross, in press). It is characterized by cognitive appraisals of strength and control and a willingness to engage in risky behavior, and it is linked to the emotional goal of "correcting perceived wrongdoing" (Halperin, 2008). In past literature, this goal has been found to be consistently pursued through increased support for aggression against an adversary (Cheung-Blunden & Blunden, 2008;

Huddy et al., 2007; Lerner et al., 2003; Skitka et al., 2006). However, we suggest that anger can also bring about constructive political attitudes, in the service of the same goal of correcting wrongdoing. In the current work, we argue that anger can promote support for positive, non-violent policies in the context of efforts to de-escalate protracted conflict, such as peace negotiations. Specifically, we suggest that the same characteristics (i.e., appraisals of relative strength and a willingness to engage in risky behavior) that make anger such a powerful aggression motivator when intergroup relations are belligerent can turn it into a powerful driving force towards resolution of the conflict in the context of attempts to de-escalate the conflict.

Group-based emotions and intergroup conflict: basic conceptualizations

Traditionally, affect has been conceptualized as an individual-level phenomenon (Arnold, 1960) in which specific emotions are linked up with specific goals, cognitive appraisals of costs, benefits, and risks, and action tendencies aimed at achieving said goals (Lerner & Keltner, 2000, 2001; see also James, 1884; Scherer, 1984; Zajonc, 1998). However, human behavior is not limited to the interpersonal context, and is greatly influenced by dynamics at the group level (Hogg & Abrams, 1999). In recent years, there has been growing interest in *group-based emotions*—emotions that individuals experience as a result of their identification with a group or social category (Mackie, Devos, & Smith, 2000; Smith, 1993, 1999; Smith & Mackie, 2008; Yzerbyt, Dumont, Wigboldus, & Gordin, 2003). *Intergroup emotion*

* Corresponding author. Department of Psychology, University of Minnesota, 75 East River Road, Minneapolis, MN 55455, USA.
E-mail address: reife014@umn.edu (M. Reifen Tagar).

theory extends this concept to group-based emotions targeted at other social groups (Smith, 1993, 1999; Smith, Seger, & Mackie, 2007). The theory posits that individuals for whom a social identity is salient and meaningful will experience emotions based on appraisals of the costs and benefits of a stimulus to the ingroup, even in the absence of direct relevance to the individual (Mackie & Smith, 1998; Mackie et al., 2000). Moreover, parallel with what is found at the individual level, group-focused appraisals associated with group emotions result in action tendencies towards outgroups (Smith et al., 2007).

The concept of group emotions is particularly pertinent when trying to understand the influence of emotions on public policy preferences in the context of intractable intergroup conflict. In such conflicts, members of the public are often influenced by events vicariously. Usually a few group members suffer or take part in an event directly, and this experience is transmitted to other group members through the mediation of leaders, the mass media, and interaction with other individuals (Halperin, Russell, Dweck, & Gross, in press; Halperin, Sharvit et al., in press). As such, group emotions evoked by these experiences become central to a group's broader reaction to conflict-related events.

Intergroup anger in intergroup conflict

Of all group emotions associated with intractable conflict, anger is one of the most significant. Anger has been understood as a reaction to events in which the actions of others are perceived to be unjust, unfair, or contrary to acceptable societal norms (Averill, 1982). Furthermore, anger is evoked in response to a negative event that frustrates a desired goal and is intensified when the event is caused by a specific agent and viewed as unjust or illegitimate (Lazarus, 1991). Accordingly, the emotional goal of anger has been defined as a desire to correct perceived wrongdoing, injustice, or unfairness (Fischer & Roseman, 2007; Halperin, 2008). Anger has also been shown to be an approach-related emotion, making people eager to act (Carver & Harmon-Jones, 2009; Davidson, Jackson, & Kalin, 2000; Harmon-Jones & Sigelman, 2001; Mackie et al., 2000). As such, it involves appraisals of relative strength and high coping ability (Mackie et al., 2000). Moreover, anger is linked to indiscriminate optimism about success (Fischhoff, Gonzalez, Lerner, & Small, 2005) and an increased willingness to engage in risky behavior (Lerner & Keltner, 2001; Rydell et al., 2008). Together, these characteristics usually lead to a tendency to confront (Berkowitz, 1993; Mackie et al., 2000) or attack the anger-evoking target (Frijda, 1986; Roseman, Wiest, & Swartz, 1994).

In line with these characteristics, previous studies in the context of real-world conflicts have consistently found clear and direct association between anger and attribution of blame to the outgroup (Halperin, in press; Small, Lerner, & Fischhoff, 2006). Other studies find that individuals who feel angry appraise future military attack as less risky (Lerner & Keltner, 2001) and forecast more positive consequences of such attack (Huddy et al., 2007). Accordingly, studies conducted in the U.S following the 9/11 attacks found that angry individuals were highly supportive of an American military response in Iraq and elsewhere (Cheung-Blunden & Blunden, 2008; Huddy et al., 2007; Lerner et al., 2003).

Anger-related action tendencies

The connection between anger and belligerence may thus seem intuitive. Nevertheless, we argue that this pattern is not the *only* action tendency associated with anger and that the emotional goal of correcting a perceived wrong may be served by constructive as well as destructive means. Specifically, a context in which one meets with the adversary and engages in negotiations aimed at de-escalation may present non-violent options for the pursuit of group goals. Such engagement entails a willingness to be pro-active and take risks.

Intergroup anger facilitates both of these things: the appraisal tendencies related to anger promote a sense of power and optimism about the ingroup's ability to handle the situation, coupled with a stronger approach orientation and openness to risk. As such, we argue that the usual psychological consequences of intergroup anger may stimulate a seemingly unusual outcome in the context of activities specifically aimed at de-escalating an ongoing conflict: namely, non-violent behavior towards the outgroup.

Three previous studies suggest that anger may not exclusively be an aggressive emotion. In an early study (Averill, 1982), when subjects were asked to report their action tendencies towards sources of anger in interpersonal contexts, non-aggressive responses were more frequent than aggressive responses. Following this study, Averill (1983) warned of interpreting anger as necessarily resulting in increased aggression. A second study of interpersonal relationships (Fischer & Roseman, 2007, Study 3) found that anger can be conducive to reconciliation and relationship improvement after some time passes from the original offense. While both of these examples are interpersonal rather than intergroup in nature, the notion that the manner in which the emotional goal of anger is pursued may differ across contexts within a broader conflict supports the idea that this may be true at the intergroup level as well.[1] In a third study that examined the difference between anger and hate in the context of attitudes of Israelis towards Palestinians (Halperin, 2008, Study 3), anger was associated with two seemingly contradictory response tendencies—support for violent action towards the Palestinians and support for educational channels to create perceptual change among Palestinians. This seeming contradiction suggests the plausibility of the hypothesis that anger can result in both aggressive and non-aggressive response tendencies (see also Halperin, in press).

To explore this hypothesis, the two studies reported here set out to explore the impact of intergroup anger on *positive risk-taking* when political negotiations are in view. In our usage, the term "positive risk-taking" refers to non-violent, diplomatic steps taken in the context of intractable conflict to promote one's own interests. This includes investment in non-violent persuasion attempts, demonstrations of good faith, and a willingness to reciprocate positive, cooperative acts from the outgroup.[2]

The current studies

We conducted two studies in two very different contexts. The first study examined the correlational relationship between anger and willingness to take non-aggressive policy risks in the context of political negotiations. This study, based on data from a representative survey of Israelis, was conducted in the context of the Israeli–Palestinian conflict on the eve of an important peace summit. The second study was a lab-based experiment which enabled us to examine causality in a conflict context that is relatively free of historic and ideological constraints. We constructed a conflict between the United States and Syria—borrowing from real components of U.S.–Syrian relations—with a sample of college students who had very little familiarity with this issue and were led to believe that de-escalatory negotiations were approaching, reconstructing the natural conditions

---

[1] Relatedly, anger has also been found to have positive consequences in interpersonal dispute resolution (e.g., Friedman et al., 2004), dyadic negotiation (e.g., Van Kleef, Van Dijk, Steinel, Harinck, & Van Beest, 2008), and ultimatum bargaining (e.g., Van Dijk, Van Kleef, Steinel, & Van Beest, 2008). However, it is important to note that "positive" in this context refers to advantage to the actor rather than non-violent policies or behavior.

[2] It could be argued that maintaining violent conflict is an equally risky alternative. However, though objectively it can indeed be as or even more risky, it is a *familiar* pattern of behavior and one that lends an illusion of power and control. As such, it is an underlying assumption of this paper that openness to engaging in new forms of behavior—particularly ones that imply at least a minimal level of reliance on the other—are perceived as more risky.

of Study 1. Using an emotion manipulation, we set out to isolate the impact of anger on positive risk-taking in policy preferences.

Study 1

Study 1 utilized a telephone survey of a representative sample of the Israeli–Jewish population in order to examine relationships between anger and support for positive risk-taking during negotiations. We expected to find that when controlling for the effects of other emotions (e.g., hope and fear) on positive risk-taking, we would find positive correlations between the levels of anger felt by Jewish Israelis towards Palestinians and support for risk-taking by the Israeli delegation at the peace talks in Annapolis in November 2007.

Background

The Annapolis peace talks, initiated by then-President George W. Bush, followed more than six years of stagnation in the Israeli–Palestinian peace process. This political process, which began in the early 1990's, had suffered a major setback following the failure of the peace summit at Camp David in 2000, which was succeeded by the outbreak of the popular Palestinian uprising dubbed the Al-Aqsa Intifada. In turn, the cycle of violence between the sides was reignited, awakening strong negative intergroup emotions between the Palestinians and Israelis. As such, the period just prior to the Annapolis Summit presented a fitting context for examining our hypotheses.

Method

Participants

The telephone survey was conducted with a representative sample of the Jewish population in Israel during November 2007. The final sample included 501 respondents, of whom 49.5% were men and 50.5% women. The distribution of education levels and places of residence represented that of the Israeli–Jewish adult population at the time of the survey (Central Bureau of Statistics, 2008). Politically, 52.7% of the respondents defined themselves as rightist (i.e., hawkish), 26.4% as centrist, and 20.9% as leftist (i.e., dovish).

Procedure

The study was conducted one week prior to the Annapolis peace summit between the Israelis and Palestinians. We used random sampling within stratified sub-groups in order to obtain a representative sample of Jews living in Israel at the time of the survey. Interviews were conducted by an experienced computerized survey institute in the interviewee's native language of Hebrew or Russian. The entire questionnaire included 120 items[3] and most participants completed it in no more than 25 min. Oral informed consent was obtained at the onset of the interview. The overall response rate was 43.6% and the cooperation rate was 51%. In other words, the final sample of 501 subjects who completed full interviews constitutes 43.6% of the original pool of 1150 individuals who were selected to participate in the study. This compares favorably with studies in the U.S., especially given that random-digit dialing in Israel, unlike the U.S., includes business phones (approximately 10–15%), which cannot be removed and must be treated as failed attempts (Canetti-Nisim, Halperin, Sharvit, & Hobfoll, 2008).

Table 1
Linear regressions predicting positive risk taking and support for militant actions.

Variable name	Positive risk		Militant action	
	Beta	t	Beta	t
Anger	**.19****	**3.19**	**.13***	**2.24**
Fear	**−.19****	**3.19**	.08	1.37
Hope	**.17*****	**3.68**	.01	.15
Political stand (hawks+)	**−.27*****	**4.99**	**.33*****	**6.21**
Income per family	−.02	−.46	−.03	−.59
Religious definition	**.11***	**2.12**	.02	.37
Education	−.04	−.80	**−.11***	**−2.42**
R^2 (adjusted)	.17 (.15)		.22 (.21)	

Note: Cells contain standardized parameter estimates with respective *t*-values:
   * $p < 0.05$.
  ** $p < 0.01$.
 *** $p < 0.001$.

Measures

To assess levels of *anger*, *fear* and *hope* in the face of the upcoming peace summit, participants were asked to "indicate their feelings towards the Palestinians when thinking about the peace summit in Annapolis." The reliabilities for our scale measures of anger (angry, irritated, and revolted; $\alpha = .80$), fear (afraid, anxious, and worried; $\alpha = .87$), and hope (optimism and hope; $\alpha = .76$) were all high. In order to re-validate the "classic" role of anger as an aggression motivator, we asked participants "to what extent ($1 =$ not at all to $6 =$ very much) do you support a large military operation of the IDF [the Israeli Army] in the Palestinian territories in order to prevent Palestinian terror actions."

To assess the main dependent variable—political support for positive risk-taking—we used one item, asking "to what extent ($1 =$ not at all to $6 =$ very much) do you think that the Israeli delegation should take some risks in order to promote peaceful resolution of the conflict, even if its members are not certain that these risks will lead to an exhaustive solution?".[4]

Finally, in order to isolate the effects of emotions on political decision making, we included a variety of controls: gender ($1 =$ male, $2 =$ female); self-reported income compared to the average in Israel ($1 =$ much below average to $5 =$ much above average), educational attainment ($1 =$ elementary, $2 =$ high school, $3 =$ post-high school but non-university/college, $4 =$ university/college student, $5 =$ university/college degree), self-reported political ideology ($1 =$ extreme left/dovish to $5 =$ extreme right/hawkish), and self-reported religiosity ($1 =$ secular, $2 =$ traditional, $3 =$ religious, $4 =$ very religious).

Results

Descriptive analysis of the data shows that support for taking risks during the upcoming negotiations was medium ($M = 3.22$, $SD = 1.69$)

---

[3] The nationwide survey used in Study 1 was part of a larger omnibus survey aimed at addressing many questions related to the political and psychological aspects of the Annapolis peace summit (see Halperin & Gross, in press, for more details). The use of a single item to assess the dependent variable was a result of the space limitations of the survey, which had to be implemented in a very short time frame in order to test the research questions in a timely manner (i.e., one week prior to the beginning of the peace summit).

---

[4] To verify content validity of this measure, we carried out a cognitive pretest (see Collins, 2003). A group of twenty seven Israelis were asked an open-ended question about their interpretation of the meaning of high score (4 to 6) on this item. Almost all (25 out of 27) subjects said that those who scored high on this scale believed that Israel can allow itself to make compromises and to offer generous proposals to the Palestinian side. In addition, we asked the participants a closed-ended question in which they were asked to locate those who scored high on that item on the continuum of the Israeli political spectrum ($1 =$ extreme rightist to $10 =$ extreme leftist). All participants apart from two located those who scored high on the item on the left side of the spectrum with a mean score of 8.33. Finally, we examined the bivariate correlations between the "positive risk" item and other more frequently used measures of conciliatory positions towards outgroups. In line with our assumptions, the positive risk item correlated significantly with support for compromise during peace negotiations ($r = .39$, $p < .001$) and with support for future, post-agreement reconciliation with the Palestinians ($r = .23$, $p < .001$). Thus, our measure appears to be content-valid.

and significantly lower than their support in initiating large-scale military action ($M = 3.84$, SD = 1.81; $t = 5.34$, $p<.001$). As for felt emotions, respondents expressed less hope ($M = 2.88$, SD = 1.47) than anger ($M = 3.32$, SD = 1.57; $t = 4.81$, $p<.001$) and than fear ($M = 3.43$, SD = 1.57; $t = 6.09$, $p<.001$). Respondents did not differ significantly in their levels of fear and anger.

To reaffirm the distinctiveness of intergroup fear, anger and hope, we conducted a maximum-likelihood factor analysis with promax rotation. This resulted in three clearly distinct factors with an eigenvalue>1: intergroup anger items loaded onto the first factor (.82 to .89; cross loadings<.60); the three fear items loaded on the second factor (.86 to .93; cross loadings<.61); and the two items measuring hope loaded onto the third factor (.902 to .903; cross loadings<.10). Together, the factors accounted for 78.87% of the item variance.

In Table 1, estimates from linear regression equations predicting support for positive risk-taking and support for military action are presented. Consistent with previous findings, the results showed that anger was positively associated with support for large-scale military action. Yet, the results also showed that anger might have constructive consequences in the context of negotiations. As hypothesized, while intergroup fear decreased support for positive risk-taking during negotiations, intergroup anger targeted at the Palestinians led Israelis to be more supportive of positive risk-taking. In that regard, the effect of anger on positive risk-taking was more similar to the effect of hope than to the effect of fear. These results remained valid even when controlling for all relevant socio-political factors. Finally, there were no significant interactions between risk and political ideology in either equation.

Discussion

The correlational findings in Study 1 suggest that the consequences of anger are not exclusively violent. While anger was positively and significantly correlated with support for military action, it was also correlated with positive risk-taking. These findings support the hypothesis that anger is an approach emotion that can and does lead to increased support for aggressive behavior, but that can also increase support for non-violent action. Of course, this study is not without its limitations. These include its correlational nature and the possibility that the findings could be dependent on a specific historical context (Maoz & McCauley, 2009). Furthermore, the relationship between risk-taking and support for non-violent policies is implied rather than tested. Study 2 set out to address these limitations.

Study 2

Drawing on the findings of Study 1, Study 2 set out to experimentally examine the causal relationship that anger may have with positive risk-taking, this time articulating the underlying assumption that a willingness to take positive risks corresponds to support for non-violent policies towards the outgroup. While our main focus was on anger, we also examined hope and fear. This allowed us to compare the effects of anger with the effects of another negative but avoidance-focused emotion (i.e., fear) and with the effects of another approach-focused but positive emotion (i.e. hope). Again, our focus was on political negotiations as a potential context in which anger might facilitate positive actions as well as aggressive actions.

In our experimental design, participants were subjected to an emotion manipulation raising either group anger, group hope, or no specific emotion, and then were asked for their appraisals, emotions, and policy preferences. There were three hypotheses in the study. First, we expected to replicate past findings by showing that participants in the "angry" condition would demonstrate significantly higher appraisals of relative strength and optimism about the ingroup's ability to successfully handle the situation, compared to participants in the control condition (H1). Second, we expected that participants in the "angry" condition would demonstrate significantly greater support for action-oriented policies—even if they are non-aggressive in nature—relative to participants in the control condition (H2). Third, we expected that participants in the "angry" condition would show significantly greater support for positive risk-taking, relative to participants in the control condition (H3). The "hopeful" condition was introduced for more exploratory reasons, namely, to gauge how levels of positive risk-taking in the presence of anger compared to those produced by a relevant positive emotion. We expected increased anger to have consequences for positive risk-taking similar to those elicited by increased hope, and hopeful conditions to produce similar or higher levels of support for non-violent policies.

Method

Participants and research design

65 undergraduate university students from a midwestern American university (77% women, 22% men; age $M = 20$, range = 18–53) voluntarily participated in a computer-based experiment for partial course credit. Participants were randomly assigned to one of three experimental conditions. All analyses were conducted on data from 60 participants, as five participants were not included in the statistical analysis: two who reported being fluent in Arabic; one who reported serving in the U.S. military in Iraq; one who reported activism in support for what the participant considered freedom movements, such as Hezbollah; and one who reported providing incorrect answers to the emotion measures.

Procedure

Participants were seated in individual cubicles in a lab setting, each with a computer and headphones. In order to apply an emotion manipulation that participants were not cognizant of, a cover story was presented. Participants were told that they would be participating in an experiment about "intuitive comprehension" of foreign languages. They were informed that they would watch a speech in a language foreign to them (with no translation) and that they would then be asked for their best guesses about the content of the speech and their preferences based on what they understood. Participants were further told that research has found that in emotion-provoking texts, such guesses are surprisingly correct, usually owing to intuitive interpretation of body language, intonation, and facial expression. For the sake of believability, students were asked to report what foreign languages they knew even at a basic level before being assigned to a condition, supposedly so that they would not get a foreign speech in a familiar language. In actuality all participants received the same speech in Arabic.

Before watching the clip, background on U.S.–Syrian relations was presented, constructed to generate a perception of intergroup conflict. Participants went on to watch a four-minute speech by Hassan Nasrallah, who was presented as "an important popular leader who has great support in Syria speaking to the Syrian people about American–Syrian relations." The emotion manipulation was embedded in the introduction to the video clip. As part of the introduction to the video, participants read about how most Americans who do understand Arabic ostensibly felt about the content of the speech (in the neutral condition, no such information was provided) and were told of common appraisals associated with these emotions. After watching the clip, participants completed follow-up questions regarding their appraisals and policy preferences.

The survey was composed of five parts: pre-manipulation measures, the experimental treatment, manipulation check measures,

dependent variables, and relevant demographics. At the end, participants were fully debriefed about the study.

Pre-manipulation measures

Participants' ideology (7 point Likert scale) and prior knowledge regarding Syria (i.e., its capital, president, and geographic location) were measured. After providing all participants with identical background information on Syria and U.S.–Syrian relations, long-term emotional sentiments towards Syria were measured using a 7-point scale similar to that used in the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), with 1 representing "not at all", 4 "somewhat" and 7 "very much." Specifically, participants were asked, "Generally, when you think of Syria, unrelated to any specific event or domain, to what extent do you feel the following?" A list of emotions was then presented, including anger, fury, rage, hope, optimism, and fear.

Experimental treatment

The goal of the experimental manipulation was to evoke one of several group emotions. For this purpose, participants watched a four-minute video excerpt of a political speech in which an apparently Muslim political leader was purportedly speaking to the Syrian people about Syrian–American relations. The speech was in Arabic, and no translation was provided.[5] The emotion manipulation was embedded in the short written introduction provided to participants immediately before viewing the video clip. Participants were randomly assigned by the computer to one of three conditions: an angry condition ($n = 23$), a control condition ($n = 26$) and a hopeful condition ($n = 11$).[6] In this short text, participants were told what emotion is evoked in most Americans who do understand Arabic by the content of the speech and what appraisals of the ingroup's capabilities the speech typically elicits (in the neutral condition, no such information was provided).

Specifically, the neutral condition read:

"You will now see a video clip of a recent speech by an important popular leader who has great support in Syria speaking to the Syrian people about America–Syria relations. After this clip, we will ask you some content questions, and what you think makes so many Americans feel the way they do about this speech. Obviously we do not expect you to know exactly what the speaker will be saying. However, as you now know, it has been found that people can pick up on general messages without knowing the language. Indeed, research has found that in highly emotion evoking speech, over 20% of messages can be deduced by body language, intonation, and facial expressions by individuals who do not understand the language. "

In the anger condition the above text was followed by:

"Most Americans who understand Arabic have said that this speech makes them very angry. While they remain convinced that America is a much stronger power than Syria, they strongly resent the speaker's statements. Some have even said that they find his words enraging and violating core values that Americans hold dear."

In the hope condition the above text was followed by:

"Most Americans who understand Arabic have said that this speech makes them hopeful. They report that the reprimands of a Syrian leader against his own leadership are refreshing, and that the new voice presented in this message was something they were not aware of before. The call to engage with America was mostly perceived as credible."

Manipulation checks

After viewing the speech, a second measure of emotions was administered. Specifically, participants were asked: "*Think of Syria in the context of the speech you just heard. To what extent do you feel the following?*" This was followed by the same list of emotions presented in the pretest. In addition, several open-ended items were asked, including questions about what participants thought the speaker was saying and why they thought most Americans who understand Arabic felt the way they did after viewing the speech. The anger scale was composed of self-reported anger, rage, and fury ($\alpha = .96$). The hope scale was comprised of self-reported levels of hope and optimism ($\alpha = .92$).

Dependent measures

Following the manipulation checks, participants were made to believe that negotiations between U.S. and Syria had been called for by Syria:

"As you may know, The President of Syria, Hassan Al Assad, has called for a bilateral summit in which America and Syria would negotiate their respective interests. In such a meeting the representatives of the two countries would meet to discuss and attempt to find a formula that both sides could agree to."

Following this, a set of dependent measures were presented. First, to replicate the expected increase in appraisals of relative strength (Halperin, 2008; Mackie et al., 2000) and optimism about the ingroup's ability to successfully manage the situation (Fischhoff et al., 2005), the following two items were presented and then combined into a scale we refer to as *traditional appraisals*: "America can handle the situation successfully" and "America is stronger than Syria" ($\alpha = .59$). Second, a measure of *positive risk-taking*, similar to the one used in Study 1, was presented: "America can allow itself to take risky steps in negotiating with Syria." Third, participants were asked about the extent to which they support different non-aggressive policies. These items included: "America should accept Syria's request to fund humanitarian projects for children in Syria"; "America should continue exports of medicine and food to Syria as a sign of good faith between the sides"; "America should invest in education and mass media campaigns to influence the Syrian position on this issue". The items were chosen because each is an action-oriented policy that can be perceived as advancing U.S. interests through non-violent means (as opposed to non-violent policies based on empathy and/or inclusion of the other in self). These items were collapsed into one scale referred to as hereafter as "positive policies" ($\alpha = .76$). All responses were given on 7-point Likert type scales, ranging from "strongly disagree" at one end to "strongly agree" at the other.

Results

Emotion manipulation

We compared post-manipulation emotions across conditions using planned contrasts (one *t*-test comparison between each pair of conditions), finding support for the manipulation's effectiveness. The mean level of anger was higher in the angry condition ($M = 3.7$, $SD = 1.9$) than in the neutral condition ($M = 2.7$, $SD = 1.6$), t = 2.08

---

[5] Full speech with English translation: http://www.youtube.com/watch?v=_WK3HbXwN0k.

[6] Since the focus of our research was on anger, a fear condition was not included. However, fear was assessed both as a long-term sentiment and as a momentary emotion. Moreover, change in fear was calculated for control purposes.

($p = .042$); and it was also higher than in the hopeful condition ($M = 1.9$, SD $= 1.4$), $t = 2.85$ ($p = .006$). No significant difference in level of anger was found between the neutral and hopeful conditions, $t = 1.25$ ($p = .215$). The mean level of hope was higher in the hopeful condition ($M = 4.1$, SD $= 1.6$) than in the angry condition ($M = 2.4$, SD $= 1.3$), $t = 3.15$ ($p = .003$); and it was also higher than in the neutral condition ($M = 2.8$, SD $= 1.6$), $t = 2.65$ ($p = .01$). No significant difference in the level of hope was found between the angry and neutral conditions ($t = .70$, $p = .49$).[7, 8]

Main analysis

Analyses of covariance on the dependent measures—with planned comparisons between the angry condition and the control condition and between the angry condition and the hopeful condition—supported the hypothesis that increased anger would augment support for non-violent policies towards the outgroup and willingness to engage in risk-taking in the context of negotiations.[9] Since the post-manipulation measures of anger and fear were significantly correlated ($r = .60$, $p < .01$), we entered fear as a covariate in the analyses. This was especially logical, since fear typically has effects on risk-taking opposite to those hypothesized for anger, i.e. it tends to increase risk aversion (Lerner & Keltner, 2001).

Anger-related appraisals

Consistent with past findings (cf. Fischhoff et al., 2005; Halperin, 2008; Mackie et al., 2000), and in support of H1, appraisals of relative strength and optimism about the ingroup's ability to cope were higher in the anger condition than both other conditions. Planned comparisons revealed a significant difference between the angry ($M = 5.7$, SD $= .79$) and control conditions ($M = 4.9$, SD $= 1.1$), $t = 2.42$ ($p = .017$); and between the angry and hopeful conditions ($M = 4.7$, SD $= 1.1$), $t = 2.47$ ($p = .019$).

Support for positive risk-taking and non-violent policies

Most importantly, the hypothesis that participants in the angry condition would display higher levels of support for positive risk-taking and non-violent policies (H2 and H3) was confirmed. Participants in the angry condition ($M = 4.2$, SD $= 1.2$) were significantly more likely to support positive risk-taking than those in the control condition ($M = 3.7$, SD $= 1.5$), $t = 2.21$ ($p = .031$). As expected, support for

positive risk-taking was not lower in the angry condition relative to the hopeful condition; in fact, surprisingly it was higher, though the difference was only marginally significant ($M = 3.7$, SD $= 1.01$), $t = 1.7$ ($p = .099$). Similarly, support for non-violent policies was significantly higher in the angry condition ($M = 4.9$, SD $= 1.2$) than in the control condition ($M = 4.1$, SD $= 1.3$), $t = 2.29$ ($p = .026$); and than in the hopeful condition ($M = 3.9$, SD $= .94$), $t = 2.25$ ($p = .029$).

Finally, the correlation between the risk-taking measure and support for positive policies was significant, $r = .36$ ($p < .01$), suggesting that the risk-taking measure did indeed tap positive risk-taking rather than negative risk-taking.

Discussion

The findings of Study 2 support our three hypotheses. First, anger significantly increased appraisals of relative strength and optimism about the ingroup's capabilities, replicating past findings. Second, anger significantly increased support for positive risk-taking. Third, anger significantly increased support for non-aggressive policy preferences. Moreover, positive risk-taking was significantly correlated with support for non-aggressive policies, confirming our interpretation of the measure. In all, this study demonstrates that anger can increase motivation for positive risk-taking and support for non-violent policies towards the outgroup in the context of intergroup conflict, challenging the assumption that aggressiveness is the only response tendency associated with anger.

General discussion

Research has repeatedly shown that anger leads to support for aggressive behavior (Cheung-Blunden & Blunden, 2008; Huddy et al., 2007; Lerner et al., 2003; Skitka et al., 2006). However, the studies presented here support the argument that there is at least one additional behavioral response that group anger can arouse. Specifically, in a survey of adults and a lab-based experimental study, we found that anger was associated with increased support for positive risk-taking and non-violent policies in the context of de-escalatory efforts.

To be sure, we do not take issue with the notion that anger tends to elicit aggressive responses amid conflict. Indeed, consistent with prior work, our findings in Study 1 revealed a strong, positive relationship between anger and aggression. Nevertheless, the results of both of our studies also indicate that—at least in the context of efforts to de-escalate a conflict, such as political negotiations—anger is also associated with support for non-violent behaviors that appear to address the emotional goal of correcting the wrongdoing that produced the anger in the first place. We believe that the finding that these two contradictory response tendencies—support for non-violent solutions as well as support for aggression—can be brought about by anger is of both theoretical and applied importance.

Our findings—particularly in Study 2—provide support for the appraisal-tendency framework's argument that anger should strengthen appraisals of one's relative strength and increase optimism about one's ability to contend with a situation (e.g., Lerner & Keltner, 2000). They also lend credence to the argument that anger motivates *active*, *approach-oriented* steps towards the goal of addressing the wrongdoings that instigated the anger (e.g., Harmon-Jones & Sigelman, 2001). However, our findings also suggest that the substantive consequences of these psychological attributes of anger may depend in important ways on situational features of the conflict in question. So, while an angered individual will be eager to act in some fashion and will perceive himself or herself as more capable of acting effectively, the resulting action tendency will depend on the situation. In this paper, we focused on de-escalatory efforts in which political negotiations are a salient possibility as one specific situation in which the positive effects of anger may demonstrate themselves. Though we expect that there are other such conditions, we chose to

---

[7] For the purpose of this study, we focused on post-manipulation differences. Nevertheless, in support of the power of such a manipulation as a tool to experimentally evoke emotions in the lab, it is worth noting that change in emotions showed the same pattern with even stronger differences between conditions. Anger increased significantly in the angry condition ($\Delta M = 1.02$, SD $= .86$) compared with both the control condition ($\Delta M = .19$, SD $= 1.2$; $p = 0.02$) and the hopeful condition ($\Delta M = -.57$, SD $= 1.2$; $p < .001$). No significant difference was found between the control condition and the hopeful condition in the increased level of anger. Change in hope was significantly higher in the hopeful condition ($\Delta M = .86$) than in both the angry condition ($\Delta M = -1.33$, SD $= 1.38$; $p < .001$) and the control ($\Delta M = -.69$, $p = 0.01$). No significant difference was found between the angry condition and the control condition with respect to change in hope. To verify that the increase in anger in the angry condition was not indicative of increased negative affect more broadly, a similar analysis was conducted with respect to change in fear. No significant differences were found between the angry condition ($\Delta M = .05$) and the control condition ($\Delta M = .00$; $p = .45$), and the difference in changes in fear between the angry and hopeful conditions was only marginally significant ($\Delta M = -.73$; $p = .063$).

[8] Since the measures used were self-reports, we wanted to address the concern that the apparent movement in emotions may have been due to demand characteristics rather than true emotional movement. To this end, self-monitoring (Snyder, 1974) was measured to see whether change in self-reported emotion was higher for high-self monitors than low self-monitors. All correlations between change in each emotion and self-monitoring scores were non-significant. In addition, participants also gave responses to open-ended questions asking them what they thought the speaker was saying, why Americans who do understand Arabic felt the way they do when listening to the speech, and how the speech made them personally feel. The pattern of responses in each condition was consistent with the above analyses of emotion change. Example responses from each condition are available by request from the authors.

[9] Analyses including ideological orientation as an additional factor revealed no significant results.

focus on this particular situation for the purpose of establishing that situational variance in the impact of anger is even a possibility (Mook, 1983). Moreover, focusing in particular on qualitatively distinct junctures in conflict—such as escalation versus negotiation—as the meaningful situational variation contributes more generally to our understanding of dynamics of conflict management, resolution, and transformation.

A further contribution is provided by Study 2, which presents a new method of manipulating group emotions in a laboratory setting (see Moons, Leonard, Mackie, & Smith, 2008, for the closest comparable example). Studying action tendencies associated with emotions in the lab is typically challenging, especially for negative emotions (Cheung-Blunden & Blunden, 2008). Thus far, most emotion manipulations ask participants to recall a time that they felt a certain emotion (e.g., Averill, 1982; Smith & Ellsworth, 1985), ask participants to articulate what it is about a specific situation or event that makes them feel a certain emotion (e.g., Small et al., 2006), or have participants experience events while primed with one group identity versus another (e.g., Rydell et al., 2008; Yzerbyt et al., 2003). These methods have proven effective. At the same time, we were hoping to develop a manipulation that more closely replicated the vicarious experience of group emotions. The manipulation employed in this study exposed all participants to the same event (a video of a political speech in Arabic) while manipulating the information participants received about the emotional experience of other group members (i.e., the emotions experienced by most Americans who understand Arabic when watching the video most). The significant alterations in self-reported emotions and open-ended responses to the manipulation suggest that it may in fact provide a closer analogue to the vicarious experience of group emotions.

With respect to Study 2, it is also interesting to note that the differences in support for positive risk-taking and non-violent policies between the angry condition and the hopeful condition were in favor of the former. The hopeful condition was included in the second study for exploratory purposes, and we expected the hopeful condition to elicit similar or higher levels of the above outcomes. One explanation for this unexpected result could be a difference in the perceived level of risk presented by the situation as well as differences in the perceived need and effectiveness of American intervention. While we unfortunately did not include items measuring these perceptions, we believe this merits further exploration in future work.

The possibly unique appraisals of risk associated with different emotions is one worthy direction for future research that could further highlight the reasons that anger arousal results in increased support for positive risk-taking and non-violent policies. More broadly, an exploration of situational characteristics that interact with cognitive appraisals and emotional goals to produce different action tendencies is needed. No less important would be the identification and examination of other variables that might moderate the effects of anger, including personal characteristics that might influence one's willingness to support non-violent action when angry (e.g., socio-political orientations); situational factors that might alter the relationship between anger and support for non-violent action (e.g., the arousal of other emotions such as hate, trust or empathy).

Another potential moderator has to do with perceptions about the outgroup's capacity for change. These perceptions include whether people make internal versus external attributions for specific negative behaviors of the outgroup (Heider, 1958) and the kind of implicit theories they hold about the malleability of groups in general (Rydell, Hugenberg, Ray, & Mackie, 2007). Preliminary results of a recent study indicate that those who attribute the objectionable behavior of the outgroup to immutable characteristics of the group are more likely to react destructively, while those who attribute outgroup behavior to contextual factors are more likely to respond constructively (Halperin, Russell et al., in press; Halperin, Sharvit et al., in press). These preliminary results suggest that individuals who believe that outgroup members are capable of changing their ways for the better are more inclined to respond constructively as a result of anger.

We suspect that the common thread connecting all of these moderators mentioned above is the perceived relevance of non-violent strategies for achieving the key goal associated with anger—i.e., the rectification of injustice. We suspect that past studies have found such a robust anger–aggression relationship because the conflicts they examined were in an escalatory phase where non-violent strategies may not have seemed relevant for correcting wrongdoing, mainly due to the perceived absence of a partner on the other side who could be influenced by non-violence (e.g., the post 9/11 period). This argument about the role of relevance finds support in the work of Pronin, Kennedy, and Butsch (2006), who found that support for military action versus diplomacy depended on the degree of rationality imputed to terrorists—specifically, their likelihood of responding to diplomatic strategies. Further empirical study will be needed to see whether this relevance mechanism explains the patterns we have highlighted in this paper.

Finally, while the findings reported here focus on protracted intergroup conflict, we suspect that they might generalize to the interpersonal level of analysis as well. Our theoretical claim that the emotional goal of anger (i.e., the rectification of wrongs) can be pursued through different behavioral paths—including non-aggressive ones, depending on their perceived potential efficacy—should hold at the interpersonal level as well. This possibility should be empirically explored in parallel individual-level studies, as our theoretical model promises to shed light on the dynamics of conflict in a diverse set of social domains.

Acknowledgement

References

Arnold, M. B. (1960). *Emotion and personality*. New York: Columbia University Press.
Averill, J. R. (1982). *Anger and aggression: An essay on emotion*. New York: Springer-Verlag.
Averill, J. A. (1983). Studies on anger and aggression. *American Psychologist*, *38*, 1145−1160.
Bar-Tal, D. (2007). Socio-psychological foundations of intractable conflicts. *American Behavioral Scientist*, *50*, 1430−1453.
Bar-Tal, D., Halperin, E., & De Rivera, J. (2007). Collective emotions in conflict: Societal implications. *Journal of Social Issues*, *63*, 441−460.
Berkowitz, L. (1993). *Aggression: Its causes, consequences and control*. Philadelphia: Temple University Press.
Canetti-Nisim, D., Halperin, E., Sharvit, K., & Hobfoll, S. (2008). A new stress-based model of political extremism: Personal exposure to terrorism, psychological distress and exclusionist political attitudes. *Journal of Conflict Resolution*, *53*, 363−369.
Carver, C. S., & Harmon-Jones, E. (2009). Anger is an approach-related affect: Evidence and implications. *Psychological Bulletin*, *135*, 183−204.
Central Bureau of Statistics. (2008). Statistical abstract of Israel. Jerusalem: Central Bureau of Statistics.
Cheung-Blunden, V., & Blunden, B. (2008). The emotional construal of war: Anger, fear and other negative emotions. *Peace and Conflict — Journal of Peace Psychology*, *14*, 123−150.
Collins, D. (2003). Pretesting survey instruments: An overview of cognitive methods. *Quality of Life Research*, *12*, 229−238.
Davidson, R. J., Jackson, D. C., & Kalin, N. H. (2000). Emotion, plasticity, context, and regulation: Perspectives from affective neuroscience. *Psychological Bulletin*, *126*, 890−909.
Fischer, A. H., & Roseman, I. J. (2007). Beat them or ban them: The characteristics and social functions of anger and contempt. *Journal of Personality and Social Psychology*, *93*, 103−115.
Fischhoff, B., Gonzalez, R. M., Lerner, J. S., & Small, D. A. (2005). Evolving judgments of terror risks: Foresight, hindsight, and emotion. *Journal of Experimental Psychology: Applied*, *11*, 124−139.
Friedman, R., Anderson, C., Brett, J., Olekalns, M., Goates, N., & Lisco, C. C. (2004). The positive and negative effects of anger on dispute resolution: Evidence from electronically mediated disputes. *Journal of Applied Psychology*, *89*, 369−376.
Frijda, N. H. (1986). *The emotions*. New York: Cambridge University Press.
Halperin, E. (2008). Group-based hatred in intractable conflict in Israel. *Journal of Conflict Resolution*, *52*, 713−736.

Halperin E. (in press). Emotional barriers to peace: Negative emotions and public opinion about the peace process in the Middle East. Peace and Conflict: Journal of Peace Psychology.

Halperin, E & Gross, J. J. (in press). Long-term sentiments predict anger responses during the Gaza war. Group processes and intergroup relations.

Halperin, E., Russell, A., Dweck, C & Gross, J. J. (in press). Anger, hatred, and the quest for peace: Anger can be constructive in the absence of hatred. Journal of Conflict Resolution.

Halperin, E., Sharvit, K., & Gross, J. J. (in press). Emotions and emotion regulation in conflicts. In D, Bar-Tal (Ed) Intergroup conflicts and their resolution: Social psychological perspective. New-York: Psychology Press.

Harmon-Jones, E., & Sigelman, J. (2001). State anger and prefrontal brain activity: evidence that insult-related relative left prefrontal activity is associated with experienced anger and aggression. Journal of Personality and Social Psychology, 80, 797–803.

Heider, F. (1958). The psychology of interpersonal relations. New York: Wiley.

Hogg, M. A., & Abrams, D. (1999). Social identity and social cognition: Historical background and current trends. In D. Abrams, & M. Hogg (Eds.), Social identity and social cognition (pp. 1–25). Oxford: Blackwell.

Horowitz, D. L. (1985). Ethnic groups in conflict. Berkeley: University of California Press.

Huddy, L, Feldman, S., & Cassese, E. (2007). On the distinct political effects of anxiety and anger. In A. Crigler, M. MacKuen, G. Marcus, & W. R. Neuman (Eds.), The dynamics of emotion in political thinking and behavior (pp. 202–230). Chicago, IL: Chicago University Press.

Iyer, A., & Leach, C. W. (2008). Emotion in inter-group relations. European Review of Social Psychology, 19, 86–125.

James, W. (1884). What is an emotion? Mind, 19, 188–204.

Lazarus, R. S. (1991). Emotion and adaptation. New York: Oxford University Press.

Lerner, J. S., Gonzalez, R. M., Small, D. A., & Fischhoff, B. (2003). Effects of fear and anger on perceived risks of terrorism: A national field experiment. Psychological Science, 14, 144–150.

Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgment and choice. Cognition and Emotion, 14, 473–493.

Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. Journal of Personality and Social Psychology, 81, 146–159.

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. Journal of Personality and Social Psychology, 79, 602–616.

Mackie, D. M., & Smith, E. R. (1998). Intergroup relations: Insights from a theoretically integrative approach. Psychological Review, 105, 499–529.

Mackie, D. M., & Smith, E. R. (Eds.). (2002). From prejudice to intergroup relations: Differentiated reactions to social groups. Philadelphia: Psychology Press.

Mackie, D. M., Smith, E. R., & Ray, D. G. (2008). Intergroup emotions and intergroup relations. Social and Personality Psychology Compass, 2, 1866–1880.

Maoz, I., & McCauley, C. (2009). Threat perceptions and feelings as predictors of Jewish–Israeli support for compromise with Palestinians. Journal of Peace Research, 46, 525–539.

Mayer, B. (2000). The dynamics of conflict resolution. San Francisco: Jossey-Bass.

Mook, D. G. (1983). In defense of external invalidity. American Psychologist, 38, 379–387.

Moons, W. R., Leonard, D. J., Mackie, D. M., & Smith, E. R. (2008). I feel our pain: Conformity to group-based emotion norms. Unpublished manuscript, University of California, Santa Barbara.

Petersen, R. D. (2002). Understanding ethnic violence: Fear, hatred, and resentment in twentieth century Eastern Europe. Cambridge, UK: Cambridge University Press.

Pronin, E., Kennedy, K., & Butsch, S. (2006). Bombing versus negotiating: How preferences for combating terrorism are affected by perceived terrorist rationality. Basic and Applied Social Psychology, 28, 385–392.

Roseman, I. J., Wiest, C., & Swartz, T. S. (1994). Phenomenology, behaviors, and goals differentiate discrete emotions. Journal of Personality and Social Psychology, 67, 206–221.

Rydell, R. J., Hugenberg, K., Ray, D., & Mackie, D. M. (2007). Implicit theories about groups and stereotyping: The role of group entitativity. Personality and Social Psychology Bulletin, 33, 549–558.

Rydell, R. J., Mackie, D. M., Maitner, A. T., Claypool, H. M., Ryan, M. J., & Smith, E. R. (2008). Arousal, processing, and risk-taking: The consequences of intergroup anger. Personality and Social Psychology Bulletin, 34, 1141–1152.

Skitka, L. J., Bauman, C. B., Aramovich, N. P., & Morgan, S. G. (2006). Confrontational and preventative policy responses to terrorism: Anger wants a fight and fear wants "them" to go away. Basic and Applied Social Psychology, 28, 375–384.

Scherer, K. R. (1984). On the nature and function of emotion: A component process approach. In K. R. Scherer, & P. Ekman (Eds.), Approaches to emotion (pp. 293–317). NJ: Erlbaum, Hillsdale.

Small, D. A., Lerner, J. S., & Fischhoff, B. (2006). Emotion priming and attributions for terrorism: Americans' reactions in a national field experiment. Political Psychology, 27, 289–298.

Smith, E. R. (1993). Social identity and social emotions: Toward new conceptualizations of prejudice. In D. M. Mackie, & D. L. Hamilton (Eds.), Affect, cognition and stereotyping: Interactive processes in group perception (pp. 297–315). San Diego, CA: Academic Press.

Smith, E. R. (1999). Affective and cognitive implications of a group becoming part of the self: New models of prejudice and of the self-concept. In D. Abrams, & M. Hogg (Eds.), Social identity and social cognition (pp. 183–196). Oxford: Blackwell.

Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. Journal of Personality and Social Psychology, 48, 813–838.

Smith, E. R., & Mackie, D. M. (2008). Intergroup emotions. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), Handbook of emotions (pp. 428–439). (3rd ed) New York, NY: Guilford.

Smith, E. R., Seger, C. R., & Mackie, D. M. (2007). Can emotions be truly group level? Evidence regarding four conceptual criteria. Journal of Personality and Social Psychology, 93, 431–446.

Snyder, M. (1974). Self-monitoring of expressive behavior. Journal of Personality and Social Psychology, 30, 526–537.

Tam, T., Hewstone, M., Cairns, E., Tausch, N., Maio, G., & Kenworthy, J. (2007). The impact of intergroup emotions on forgiveness. Group Processes and Intergroup Relations, 10, 119–136.

Van Dijk, E., Van Kleef, G. A., Steinel, W., & Van Beest, I. (2008). A social functional approach to emotions in bargaining: When communicating anger pays and when it backfires. Journal of Personality and Social Psychology, 94, 600–614.

Van Kleef, G. A., Van Dijk, E., Steinel, W., Harinck, F., & Van Beest, I. (2008). Anger in social conflict: Cross-situational comparisons and suggestions for the future. Group Decision and Negotiation, 17, 13–30.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. Journal of Personality and Social Psychology, 54, 1063–1070.

Yzerbyt, V., Dumont, M., Wigboldus, D., & Gordin, E. (2003). I feel for us: The impact of categorization and identification on emotions and action tendencies. British Journal of Social Psychology, 42, 533–549.

Zajonc, R. B. (1998). In D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), Emotions (4th ed). The handbook of social psychology, Vol. 1. (pp. 591–632) Boston: McGraw-Hill.