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Can Emotions Be Truly Group Level? Evidence Regarding Four Conceptual Criteria

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Recent advances in understanding prejudice and intergroup behavior have made clear that emotions help explain people's reactions to social groups and their members. Intergroup emotions theory (D. M. Mackie, T. Devos, & E. R. Smith, 2000; E. R. Smith, 1993) holds that intergroup emotions are experienced by individuals when they identify with a social group, making the group part of the psychological self. What differentiates such group-level emotions from emotions that occur purely at the individual level? The authors argue that 4 key criteria define group-level emotions: Group emotions are distinct from the same person's individual-level emotions, depend on the person's degree of group identification, are socially shared within a group, and contribute to regulating intragroup and intergroup attitudes and behavior. Evidence from 2 studies supports all 4 of these predictions and thus points to the meaningfulness, coherence, and functionality of group-level emotions.

Keywords: intergroup emotions, consensus, prejudice, group identification, appraisals

When people belong to and identify with a group, one result is that emotions, often potent ones, can arise as a result of group-relevant events. People are elated when their favorite football team upsets a stronger team, saddened and angry when their team loses a game, and disgusted when the winning team's fans drunkenly riot in the street—all without personally leaving the couch. On a more serious note, wars, terrorist attacks, or natural disasters that affect a country as a whole generate feelings of sadness, anger, and fear among those who identify with the country even if they themselves or their families and friends are not directly affected.

Traditionally, emotion has been considered an individual phenomenon, bearing on personal concerns such as an individual's own goals, desires, and resources. For example, appraisal theories of emotion (Frijda, 1986; Keltner, Ellsworth, & Edwards, 1993; C. A. Smith & Ellsworth, 1985) view emotions as arising when an individual appraises an event as harming or helping his or her goals or desires. Despite the extensive and fruitful research on individual theories of emotion, this approach does not fully explain the kinds of group emotions expressed in our examples.

Intergroup emotions theory (IET; Mackie, Devos, & Smith, 2000; Mackie & Smith, 1998; E. R. Smith, 1993, 1999) was developed in an attempt to better understand the nature of emotions that arise from group identification and membership, with a particular focus on the emotional antecedents of prejudice, discrimination, and other intergroup behaviors. IET borrows broadly from appraisal theories of emotion, as well as from social identity theory and self-categorization theory (Tajfel, 1978; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), to extend theorizing about emotion from the individual to the group level. The basic premise of IET is that when an individual identifies with a group, that ingroup becomes part of the self, thus acquiring social and emotional significance (E. R. Smith & Henry, 1996; Tajfel, 1981). When an ingroup acquires such significance, events or objects that impinge on the ingroup are appraised for their emotional relevance, just like events that occur in an individual's personal life. Specific patterns of appraisals then produce emotional reactions (Frijda, Kuipers, & ter Schure, 1989; C. A. Smith & Ellsworth, 1985)—the emotions that people experience when they identify with a group or think of themselves in terms of a particular social identity.

Two Foci of Theory Regarding Group-Level Emotions

The initial focus of research in this area (E. R. Smith, 1993) was on emotions felt by people on behalf of their ingroups and targeted at outgroups. These were regarded as an important and understudied aspect of prejudice and motivators of intergroup behavior. For example, an outgroup may be appraised to be a dangerous threat, to violate ingroup norms, or to be suffering unjustly. In these cases, the outgroup might be regarded with anger, disgust, or sympathy, respectively, and behavioral responses may involve attack, avoidance, or helping. An emphasis on emotions targeted at hostile or competing outgroups has continued in much of our work related to group-level emotions (e.g., Mackie et al., 2000; Maitner, Mackie, & Smith, 2006; Miller, Smith, & Mackie, 2004). In these studies, we asked people to report how much they feel anger, fear, or other emotions when they encounter or think about members of specific outgroups.

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A broader focus, however, is suggested by the theoretical claim that "when group membership is salient, the group functions as a part of the self, and therefore . . . situations appraised as self-relevant trigger emotions just as they always do" (E. R. Smith, 1993, p. 303). This viewpoint implies that group-level emotions include not only emotions targeted at specific outgroups but also a wide variety of positive and negative emotions—in fact, presumably any emotions that people can experience as individuals—that arise as a function of being a group member. This article takes this broader approach to group-level emotions, considering a wide range of emotional feelings, both positive and negative, that people experience when they think of themselves as group members.

For this research focus, we asked people to what extent they generally feel a number of positive and negative emotions when they identify with or think of themselves as members of a particular ingroup. A similar approach has been used in research that aimed to identify the profiles of individual-level emotional feelings generally experienced by particular types of people (e.g., Watson & Clark, 1992). The widely used Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) and its variants are examples of scales that ask respondents to what extent they generally feel each of a number of specific emotions. In a broad sense, the current studies had a research goal paralleling Watson and Clark's (1992) study linking profiles of emotional feelings to individuals' specific personality types; in our case, we examined individuals who identify with specific group memberships. For example, we might find that when people identify with one group, they tend to feel high levels of anger or low levels of pride, compared with the same people when they are responding as individuals or as members of a different group.

Goals of the Current Studies

This article makes the case that the types of emotions suggested by these examples and investigated in our ongoing research are truly a group-level phenomenon. Of course, most emotions are social in some sense. Most emotions that individuals experience arise in social contexts, sparked by interpersonal interactions (e.g., feelings of gratitude or anger at another person's actions). Empathetic emotions—emotions experienced based on the joyful or sorrowful situation of another individual—are also profoundly social. To conceptually and empirically distinguish these other types of social emotions from the group-level emotions that we postulate, those experienced by an individual when identifying with an ingroup, we propose four criteria or tests (see Mackie, Silver, & Smith, 2004). They are as follows:

1. Group-level emotions are distinct from the same person's individual-level emotions.
2. Group-level emotions depend on the person's level of group identification.
3. Group-level emotions are socially shared within a group.
4. Group-level emotions contribute to motivating and regulating intragroup and intergroup attitudes and behavior.

In specific circumstances, one or another of these four might not hold. For example, an attack by a nation's enemies might create fear at both the individual and group levels, contrary to the first criterion. At times, different members of the same group might appraise an event differently, leading them to have different emotional responses, contrary to the third criterion. Our claim is not that each criterion is individually critical for establishing the reality of group-level emotions but simply that evidence supporting all four would lend strong impetus to that conclusion. We now conceptually elaborate each of these criteria in more detail and discuss existing evidence on each point.

Group-Level Emotions Are Distinct From Individual-Level Emotions

Some continuity or overlap between a person's individual and group emotions is certainly to be expected—that is, basic personality processes lead some people to be generally happy, or angry, or anxious regardless of whether they are thinking of their individual or collective identities (Geers & Lassiter, 1999; Watson & Clark, 1992). Some group-related events, such as great national victories or defeats, may lead people to feel similar emotions at the group and individual levels. However, we hypothesized that the profile of group-level emotions generally differs systematically and reliably from the same person's individual-level emotions despite some degree of correlation between the two levels. That is, if people give essentially the same reports when asked about their individual-level emotions and their emotions as members of a group such as Americans, it would be difficult to argue that group emotions are truly a distinct phenomenon.

Preliminary evidence that group and individual emotions are distinct comes from demonstrations that people can experience group emotions in response to events that affect other ingroup members but not the perceivers personally (Gordijn, Wigboldus, & Yzerbyt, 2001; Mackie et al., 2004)—for example, anger in response to victimization of other group members by a third party even when the situation does not personally affect the perceiver. Furthermore, individuals can experience guilt for events that happened long before they were born, such as during their country's colonial past (Doosje, Branscombe, Spears, & Manstead, 1998). Thus, previous research illustrated that people can feel emotions appropriate to important group identities even when they are uninvolved as individuals. However, none of this research examined multiple group memberships, as the current investigation did.

Group-Level Emotions Depend on the Degree of Group Identification

Thinking of oneself as a group member is the starting point for group emotions because it is the process that imbues the group with properties of the psychological self, including affective significance (Tajfel, 1978). Thus, we expected that people who identify more strongly with a group should experience and express group emotions to a greater extent than weak identifiers, a prediction that is particularly clear for positive group emotions (e.g., happiness, pride). The situation is more ambiguous with negative emotions. On the one hand, it is plausible that strongly identified, highly committed group members would stick with the group even if group membership gives rise to negative emotions such as fear, irritation, or guilt, whereas more weakly identified members may fall away in such trying circumstances. This process would create

a positive correlation between identification and negative group emotions, a pattern found in a study by Mackie, Silver, Maitner, and Smith (reported in Mackie et al., 2004). In a study carried out shortly after September 2001, they found that identification with Americans as a group correlated positively with emotions of fear and anger about the possibility of a hypothetical terrorist attack on the United States. Similarly, Yzerbyt, Dumont, Wigboldus, and Gordijn (2003; Gordijn, Yzerbyt, Wigboldus, & Dumont, 2006) showed that group emotions, including anger, were experienced more by participants who reported strong attachment to an assigned group.

On the other hand, strongly identified group members may be motivated to reappraise situations to avoid experiencing negative group emotions such as guilt. Reminded of their nation's colonial past, strong identifiers may rationalize or justify its past acts to minimize collective guilt (Doosje et al., 1998). This process would create a negative correlation between identification and negative group emotions. Yet a third possibility is that people might decrease identification with a group that makes them feel guilty, discouraged, or irritated, also creating a negative correlation. Thus, group identification and group-level emotions can influence each other in complex ways. However, the lack of an empirical relation between group identification and reports of group emotions would clearly call into question the hypothesis that emotions occur at the group level.

Group-Level Emotions Are Socially Shared Within a Group

Our third criterion goes beyond the responses of a single individual group member: We predicted that a number of distinct individuals who are all thinking in terms of a single group membership would share broadly similar group emotions. In other words, many individuals' reports of emotions felt as Americans tend to converge toward a prototypical American profile of emotions. Similarly, when the same individuals think of themselves in terms of another group membership (such as their university), their emotions converge toward prototypical university emotions. Moreover, consistent with the second criterion listed above, this convergence is predicted to be greater for individuals who more highly identify with the group. Such convergence would represent compelling evidence that shared group membership carries with it a profile of general emotional feelings that is also shared to a greater or lesser degree. The convergence we expected goes beyond the idea that a small group of people who interact face to face might influence each others' moods or emotions. We anticipated convergence of group-level emotions even for large, abstract social categories (e.g., Americans) of the sort that have been studied in the social identity theory tradition and found to be important aspects of many people's social identities.

Some previous work makes it plausible that emotions are shared within social groups. People's attitudes and behaviors generally tend to converge toward those that are prototypical of their groups when group membership is salient (Hogg & Turner, 1987; Spears, Doosje, & Ellemers, 1997). Although past studies did not examine emotions, it is reasonable to assume that the same principle would apply to them. Other research manipulated whether or not participants categorize themselves with a group member who is victimized by a particular event and measured the participants' emotions. Yzerbyt, Dumont, Gordijn, and Wigboldus (2002) found that participants who categorized themselves with victims tended to feel anger. This result also suggests that emotions likely converge among those who identify with a group. Our studies assessed this hypothesis in a way that went beyond previous research by assessing a number of different positive and negative emotions (not only one or two, such as anger) and by examining emotions more broadly than those occurring in response to a specifically manipulated experimental event (such as a victimization).

Group-Level Emotions Motivate and Regulate Intragroup and Intergroup Attitudes and Behavior

A fundamental assumption of virtually every current emotion theory is that emotions are functional (Frijda et al., 1989; Keltner & Haidt, 1999; Russell, 2003). Emotions adaptively regulate judgments and behaviors in ways that help individuals to attain their goals and avoid dangers. As argued by Mackie et al. (2004), a corollary is that group-level emotions find their function in regulating group members' attitudes and behavior in relation to social groups, whether ingroups or outgroups. For example, group pride motivates people to approach other ingroup members or to increase their level of identification with the group, whereas group anger might motivate people to attack outgroup members or to show stronger biases favoring the ingroup over the outgroup. Mackie et al. (2000) showed precisely such an effect: Feelings of group-level anger predicted desires to attack and confront members of an opposing outgroup. In this vein, Yzerbyt et al. (2003) showed that group-level emotional experiences can be highly differentiated, mediating specific action tendencies (Dumont, Yzerbyt, Wigboldus, & Gordijn, 2003; Gordijn et al., 2006). On the basis of other research (Frijda et al., 1989; Leach, Iyer, & Pedersen, 2006; Mackie et al., 2000; Roseman, 1984) showing that anger is an especially potent motivator of action, we tentatively suggested that group anger may be particularly strongly related to group-relevant action tendencies.

Not only may emotions influence immediate action tendencies, they may also have longer term effects on people's intergroup attitudes. Skitka, Bauman, and Mullen (2004) showed that people with immediate reactions of anger versus fear to the September 11, 2001, attacks had different levels of tolerance for outgroups 4 months later. Miller et al. (2004) found that group emotions are important causes and mediators of effects on intergroup prejudice (the negative evaluation of an outgroup), which in turn has wide-ranging effects on people's evaluations of outgroup members, behavioral discrimination against them, willingness to approach and befriend them, and so on. For our fourth criterion, our prediction was a strong one: We expected to find that group emotions are related to intragroup and intergroup attitudes and ultimately to behavior even after potentially overlapping individual-level emotions have been statistically controlled.

In summary, scattered existing evidence supports each of the four criteria. However, previous studies looked at only one or two discrete emotions (often anger) and typically examined only a single group membership, often in an artificial or newly created group. Our studies made a comprehensive assessment of all four criteria, using a wide range of both positive and negative emotions as well as several different group memberships of actual, ongoing, and long-term importance to our participants. Study 1 examined all

four criteria with regard to the groups Indiana University (IU) student, Democrat, and Republican (although evidence on the fourth criterion is limited because of small sample size). Study 2 examined all four criteria for the groups American, Democrat, and Republican, with a considerably larger sample.

Study 1

Our first study was designed to obtain evidence regarding these criteria by asking participants to report the emotions they experienced when thinking about themselves as unique individuals, as well as the emotions experienced as members of university and political party ingroups.

Method

Participants were 110 Introductory Psychology students (69% female) at IU, Bloomington, Indiana, recruited through the Psychology Department's subject pool. All participants received credit as partial fulfillment of their research experience requirement and completed a Web-based questionnaire.

The study was described as examining individuals' perceptions of themselves and groups that they belong to. Two initial pages secured informed consent and asked for the participant's university ID (used to assign experimental credit). The order of the next sections of the questionnaire was then randomly counterbalanced.

Individual emotions. Participants were presented a list of 12 emotions (angry, satisfied, afraid, hopeful, proud, disgusted, uneasy, happy, grateful, guilty, respectful, and irritated) with instructions to rate, on separate 7-point scales anchored by *not at all* and *very much,* the extent to which they felt each of these emotions as an individual. The wording was "As an individual, to what extent do you feel each of the following emotions?"

Group identification and group emotions. For each participant, group identification and emotions in reference to two different groups were measured. Identification with IU was assessed first, using a brief four-item scale (derived from Doosje, Ellemers, & Spears, 1995). Using 7-point scales anchored by *do not agree at all* (1) and *agree completely* (7), participants responded to the following statements: "I see myself as an IU student," "I am pleased to be an IU student," "I feel strong ties with IU students," and "I identify with other IU students." Participants were then asked about their emotions as an IU student: "As an Indiana University student, to what extent do you feel each of the following emotions?" This wording closely parallels the wording of our individual-level emotion question. Participants responded regarding the same 12 emotions described in the individual emotions section. Participants next indicated whether they identified themselves more as a Democrat or a Republican and then completed the same identification scale and emotion items (with appropriate rewordings) with regard to the party they chose. Of course, some participants may have felt no meaningful tie to either party, but this simply assured us that we would have a good range on identification with the party, from near zero to a moderate or high level.

The order of these two questionnaire sections was randomly counterbalanced. Some participants completed the individual emotions measure before the two group emotions measures, whereas others completed the group measures before the individual emotions measure.

Intergroup attitudes and behavioral tendencies. Finally, all participants completed feeling thermometer scales (range: 0–100) to measure evaluations of a number of groups, including IU students, Democrats, and Republicans, as well as several filler groups. They also completed a number of action tendency items assessing willingness to perform specific types of actions relevant to party membership or to IU student status.

As is common with Web-based questionnaires, preliminary analyses showed that some participants failed to comply with instructions or simply responded unthinkingly. In particular, analyses revealed that 9 participants had no variance in their ratings of the 12 individual or IU emotions (e.g., responding with 4, the scale midpoint, to all 12 emotions). These noncompliant participants were dropped from all analyses, leaving an N of 101. Nineteen additional participants either had no variance in their ratings of the 12 political party emotions or did not check either party. Inspection of the data suggested that these individuals were generally compliant but seemed to be indicating they had no identification with either political party (most did not check either party and/or used the extreme low end of the scale for the party identification items). Therefore, these participants were included in the sample for analyses of individual and IU variables, though (obviously) excluded for analyses of the party variables.

Results and Discussion

In general, our analytic approach was to replicate each analysis for each of the three groups: IU ($N = 101$), Democrats ($N = 40$), and Republicans ($N = 42$). Each respondent contributed data for the IU group and one or the other party (except for those participants excluded from the party analyses as just described).

Preliminary analyses showed that gender did not have any material effects. Gender related significantly to 2 of the 12 individual emotions (with men reporting more satisfaction and hopefulness than women) but was significantly related to none of the IU or party emotions. This means that gender cannot account for any effects involving the group-level emotions, so all analyses collapse across gender.

Group-level emotions are distinct from individual emotions. We computed the correlation between individual anger and group anger, between individual happiness and group happiness, and so on, and averaged these 12 correlations. The average correlation of corresponding emotions between the individual and group levels was .52 for IU, .25 for Democrats, and .33 for Republicans. Correlations of these sizes are significant at $p < .05$ for the IU and Republican groups, with the given sample sizes. These correlations showed that to a nontrivial extent, group and individual ratings of the same emotion tended to overlap (accounting for 6%–25% of the variance in group emotions).

That degree of correlation, however, obviously leaves open the possibility of reliable and meaningful differences between emotions at the individual and group levels. To assess the significance of these differences, we used an analysis of variance (ANOVA). We analyzed the first set of emotions reported by each participant (individual or group emotions, depending on the order counterbalancing). For each group, we analyzed these responses in a 12 (emotions, within-subjects) $\times$ 2 (individual vs. group level,

Table 1
Analyses Examining Distinctions Between Group-Level and Individual-Level Emotions for Three Ingroups, Study 1

Group	*F* test for emotions main effect	*F* test for level main effect	*F* test for Emotions × Level interaction
IU ($N = 94$)	$F(11, 82) = 68.57^{***}$	$F(1, 92) = 0.17$	$F(11, 82) = 2.35^{*}$
Democrats ($N = 38$)	$F(11, 26) = 9.72^{***}$	$F(1, 36) = 1.35$	$F(11, 26) = 2.31^{*}$
Republicans ($N = 42$)	$F(11, 30) = 17.44^{***}$	$F(1, 40) = 10.91^{**}$	$F(11, 30) = 2.64^{*}$

Note. IU = Indiana University.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

between-subjects) mixed ANOVA.[1] The *F* tests for key effects in these analyses are shown in Table 1.

First, the emotions main effect was significant for all three groups, indicating (not surprisingly) that participants felt systematically more of some emotions than of others. The level (individual vs. group) main effect was significant for Republicans but not for Democrats or IU. Examination of the means indicated that people reported similar levels of emotion (averaging across the 12 specific emotions) as individuals ($M = 4.15$) and as IU students ($M = 4.17$) but a somewhat lower level as Democrats ($M = 3.75$) and a significantly lower level as Republicans ($M = 3.68$). Third and most important, there were, as predicted, reliable differences between the profiles of emotions reported as individuals and as members of each group (the Level × Emotions interaction was significant for all three groups; see the last column of Table 1). Consistent with our first criterion, then, group emotions had significantly different patterns or profiles from individual-level emotions and were not just repetitions or projections of what people were feeling as individuals. Although reports of individual and group emotions were moderately correlated, there were reliable differences in the profiles of emotions people reported when thinking of themselves as individuals versus as members of specific social groups.

Group-level emotions depend on group identification. Our second hypothesis was that group identification would correlate positively with levels of positive group emotions, although there were competing theoretical possibilities with regard to negative group emotions rendering hypotheses uncertain. The group identification scales had good reliability (>.90) for all three groups (Ms = $5.97_{\text{IU,}}$ 3.88_{Dem}, and 3.97_{Rep}). We correlated all 12 emotions for each group with the respective index of group identification (see Table 2).[2] The signs of these correlations displayed a highly consistent pattern: All 18 of the correlations with positive group emotions (six positive emotions, three groups) were positive, with a mean of .49. In contrast, 16 of the 18 correlations involving negative group emotions were negative, and the mean was −.17. For comparison, we also correlated the individual-level emotions reported by members of each group with group identification. As predicted, these correlations were generally much lower. The group emotion correlation was higher in absolute value than the individual emotion correlation in 33 of the 36 cases ($p < 3e^{-07}$ by a sign test).

Overall, there was strong evidence for our second criterion—group emotions are related to the person's level of group identification. As expected, the correlations between identification and positive emotions were strong and substantial: Individuals who identified more strongly with a group also reported higher levels of positive group emotions. The correlations of identification with negative emotions were weaker and more variable but were generally negative. A negative correlation is consistent with the idea that strongly identified group members are motivated to reinterpret or reappraise situations to avoid feeling negative group emotions (Doosje et al., 1998) or with the idea that people who frequently or intensely experience negative emotions with regard to a particular group membership may disidentify with that group as a way of escaping the unpleasant emotions. Either process would generate a negative correlation between the intensity of negative emotions and group identification.

Group-level emotions are shared within groups. Our third criterion suggests that the emotions people feel when their membership in a particular group is salient converge toward some average or prototypical profile of emotions for that group. We tested this idea by assessing the extent to which a particular participant's level of a particular group emotion (happiness as an IU student, say) was predicted by (a) the same participant's individual-level happiness and (b) the average group happiness reported by members of the IU group. Individual emotions were expected to be a predictor because of the overlap between individual and group emotions (see discussion of our first criterion, above). Our key hypothesis, however, was that the group average emotion profile would also predict the individual's group emotions above and beyond the participant's individual emotions.

We also expected that the amount of convergence toward the group average profile would be greater for participants who identified more strongly with that particular group. In other words, we expected group identification to moderate the effect of the group average profile on the individual's group emotion reports. We also examined the possibility that group identification might interact with individual emotions. This would indicate that, for more strongly identified individuals, group emotions might spill over and affect individual emotions to a greater degree.

This analysis required treating our data set as a hierarchical, multilevel data set with the 12 emotions within each participant as

[1] We report this between-subjects analysis instead of a within-subjects analysis (comparing the individual and group emotions reported by the same participant) because a within-subjects approach might exaggerate differences between reports of individual and group emotions (the very differences we are seeking to demonstrate here). Conversational postulates might lead people to infer that the second set of emotion questions is seeking different answers than they have just provided in response to the first set of questions. The between-subjects analysis avoids this concern.

[2] The four-item identification scale includes one item that may be seen as referring to an emotion, being pleased to be a group member. Omitting this item to leave only the three more cognitive identification items does not change these results materially.

Table 2
Correlations of Individual- and Group-Level Emotions With Group Identification for Each Group, Study 1

	Negative emotions						Positive emotions					
Identification	Anger	Afraid	Disgusted	Uneasy	Guilty	Irritated	Satisfied	Hopeful	Proud	Happy	Grateful	Respectful
IU												
Individual	.06	.22*	−.10	.03	−.02	.10	.09	.18	.23*	.41*	.14	.14
Group	−.07	−.01	−.08	−.11	.14	−.13	.35*	.39*	.28*	.63*	.36*	.25*
Democrats												
Individual	.11	−.19	−.18	−.06	−.08	.02	−.11	−.12	−.13	−.02	−.25	−.01
Group	−.23	−.28	−.44*	−.29	.12	−.35*	.40*	.44*	.74*	.42*	.40*	.32*
Republicans												
Individual	.10	−.04	−.08	−.04	−.26	−.02	.42*	.28	.00	.42*	.34*	.00
Group	−.03	−.31	−.14	−.26	−.35*	−.20	.76*	.48*	.79*	.66*	.60*	.57*

Note. IU = Indiana University.
* $p < .05$.

the first level and with individual participants as the second level. Using SAS PROC MIXED (Singer, 1998), we set up the prediction equation at the first (emotions) level with each individual's reported level of group emotion as the dependent variable and with two independent variables: (a) the same individual's level of that emotion at the individual level and (b) the average level of that group emotion (across all group members in our sample). To test the prediction that group identification would moderate this process, we also included identification (measured at the second, or participant, level) as a further independent variable, as well as interactions between identification and the other two predictors.[3] Results of this analysis for each of the three groups are shown in Table 3.

The coefficients representing the prediction at the emotions level (within-subjects) appear in columns 2 and 3 of Table 3. Because we centered the group identification predictor (to a mean of 0) for the analysis, these coefficients represent the effects found at the average levels of group identification across the sample. Each participant's individual emotions significantly predicted the same person's reports of group-level emotions in two of the three cases (coefficients in Table 3, column 2). However, controlling for the effect of individual emotions, the average emotion profile for each of the three groups was also a highly significant predictor (see Table 3, column 3). Importantly, the effects of the average group emotion profiles were in every case much larger than the effects of individual emotions. Thus, there was highly significant convergence of reported group emotions toward the average profile of group emotions for each ingroup.

Interactions of group identification with the individual emotion predictor (see Table 3, column 4) and the group emotion predictor (see Table 3, column 5) produced mixed results. Group identification interacted with the group average profile for one group (Republicans), showing that for this group, the convergence of emotions toward the group profile was significantly stronger for participants with higher levels of group identification. This effect, which we hypothesized, was examined further in Study 2. Group identification interacted with individual emotions for one group (Democrats), offering weak support for the idea that more strongly identified group members show greater overlap of their individual and group emotions.

Additional analyses (not shown in detail) examined the interaction of order (whether participants answered individual or group emotion questions first) with the other factors in these analyses and found no significant effects or interactions of order.

Overall, these analyses strongly support our third criterion, that people's group emotions converge toward an average or prototypical group emotion profile. Indeed, it can be said that group emotional profiles are shared among group members. There was weaker evidence for our related prediction that the amount of convergence would be stronger for those highly identified with their group.

Group-level emotions regulate intragroup and intergroup attitudes. The fourth and final criterion for group emotions is that group-level emotions are functional in regulating people's attitudes and behaviors with respect to their own groups as well as relevant outgroups. We therefore expected that group emotions would predict ingroup- and outgroup-directed attitudes and behaviors even after controlling for individual emotions (which earlier analyses showed were correlated with group emotions). Group-level emotions were expected to predict tendencies to perform

[3] Technically, the analytic approach is the following (cf. Singer, 1998, example on p. 337). The index i (1-12) refers to emotions and j to participants. Grpem-ij is the report of group emotion i by participant j; indem-ij is the report of individual emotion i by participant j; grpavg-i is the average level of group emotion i across participants who are members of that group. Finally, ident-j is participant j's level of group identification.

level 1 (emotions or responses) model:

grpem-ij = B0j + B1j(indem-ij) + B2j(grpavg-i) + rij

level 2 (participant) model:

B0j = gamma00 + mu0j
B1j = gamma10 + gamma11(ident-j) + mu1j
B2j = gamma20 + gamma21(ident-j) + mu2j

which translates to:

```
proc mixed noclprint covtest;
class subject;
model grpem = ident indem ident*indem grpavg
ident*grpavg/solution ddfm = bw;
random intercept indem grpavg/type = un
sub = subject;
```

Table 3
Results From Multilevel Analysis Examining Convergence of Group Emotions to Group Average Profile, Study 1

	Coefficients		Interaction with group identification	
Group	Individual emotion	Group average	Individual emotion	Group average
IU (N = 101)	.45***	.55***	.04	.07
Democrats (N = 40)	.07	.71***	.12*	.14†
Republicans (N = 42)	.20***	.67***	.00	.33***

Note. IU = Indiana University.
† $p < .10$. * $p < .05$. *** $p < .001$.

differentiated behaviors; we assessed desires to support the ingroup, attack the outgroup, and avoid the outgroup. We report these regression analyses only for the IU group (N = approximately 100) because Ns for the Democrat and Republican groups are too small (<50) and those groups were examined with a larger sample in Study 2.

To measure support for the ingroup, we used the IU feeling thermometer measure. To measure the desire to confront the outgroup (the rival Purdue University, or PU), we used a scale of three items (reliability = .75): willingness to tell a PU student why PU is inferior, willingness to tell a critical PU student that he or she is wrong, and willingness to tell a PU student why IU is better. Finally, to measure avoidance of the outgroup, we asked about the intention to avoid a critical PU student. Exact item wordings are in the Appendix.

To predict these dependent measures, we combined the emotion items into four composites based on both conceptual and empirical reasons. Several of the emotion items are similar or overlapping in content, which can influence regression coefficients, making it desirable to aggregate them into scales. An anger scale was formed from the three related emotions angry, disgusted, and irritated (reliability = .76). An anxiety scale consisted of the two items uneasy and afraid (reliability = .69). Guilt was measured with the single item guilty. Finally, all six positive emotions—satisfied, hopeful, proud, happy, grateful, and respectful—were combined (reliability = .88), based on preliminary analyses showing that they were strongly interrelated and on evidence and theory showing that positive emotions generally are less differentiated than negative emotions, especially with regard to their action tendencies (Fredrickson, 1998).

Table 4 presents these results. Although few effects are significant, presumably because of the relatively small N, positive group emotions increased tendencies both to support the ingroup and to confront the outgroup. No effects of negative group emotions or of individual emotions were significant. We thus have preliminary evidence for our fourth criterion, that group-level emotions predict at least some group-related attitudes and action tendencies even when individual emotions are statistically controlled. Our sample size, however, is marginal for the number of independent variables in the analyses.

Study 2

Study 1 provided evidence supportive of all four criteria. Individual and group emotions are distinct, group emotions (especially positive emotions) relate to group identification, group members converge toward meaningful shared profiles of group emotion, and group emotions (not individual ones) relate to group-relevant action tendencies. Nevertheless, we had several reasons to replicate and extend these results in a second study.

First and most important, we wanted a much larger sample size to provide greater power than that offered by Study 1, especially for the analyses relevant to the fourth criterion. Second, we wanted to add to the generalizability of our results, so we tested our hypotheses for group identification as an American, as well as seeking to replicate results for Republican and Democratic groups. Third, we wished to demonstrate that the results do not depend on specific details of the question wording used to elicit group emotions. Study 2 used a wording adapted from Bizman, Yinon, and Krotman (2001), whose study successfully elicited group emotion reports from Israeli participants. With the wording "When you think about yourself as a [group member], to what extent do you feel each of the following emotions?", we sought to make explicit that we wanted reports of emotions that are experienced when the participant thinks of him- or herself as a group member. We expected that these instructions would produce the same results as the briefer question used in Study 1 ("As a [group member], to what extent do you feel . . . ?"), providing reassurance that our findings were not critically dependent on the specific wording used to elicit group-level emotions.

Table 4
Unstandardized Coefficients From Regression Predicting Confrontational, Supportive, and Avoidance Action Tendencies Relevant to Indiana University (Columns) From Emotion Scales Measuring Anger, Guilt, Anxiety, and Positive Emotions for the Individual and the IU Group, Study 1

Emotion	Confront	Support	Avoid
IU anger	0.11	0.32	0.12
IU guilt	0.10	3.21	0.21
IU anxiety	−0.08	−0.83	−0.29
IU positive	0.69*	9.93**	−0.42
Individual anger	−0.39	1.28	0.27
Individual guilt	0.01	−3.08	0.01
Individual anxiety	0.36	0.36	−0.35
Individual positive	−0.34	−3.67	−0.26

Note. N = 94. IU = Indiana University.
* $p < .05$. ** $p < .01$.

Table 5
Analyses Examining Distinctions Between Group-Level and Individual-Level Emotions for Three Ingroups, Study 2

Group	*F* test for emotions main effect	*F* test for level main effect	*F* test for Emotions × Level interaction
Americans ($N = 366$)	$F(12, 4368) = 605.28^{***}$	$F(1, 364) = 12.78^{***}$	$F(12, 4368) = 12.35^{***}$
Democrats ($N = 195$)	$F(12, 2316) = 273.03^{***}$	$F(1, 193) = 99.25^{***}$	$F(12, 2316) = 20.78^{***}$
Republicans ($N = 154$)	$F(12, 1824) = 257.37^{***}$	$F(1, 152) = 92.05^{***}$	$F(12, 1824) = 13.41^{***}$

$^{***}p < .001$.

Finally, previous researchers suggested that anger, both at the individual and group levels, is particularly capable of driving concrete actions (Frijda et al., 1989; Leach et al., 2006; Mackie et al., 2000; Roseman, 1984). Study 1 did not find strong effects of anger on action tendencies. Although this result might have been partially due to low power, another potential explanation is that Study 1 failed to distinguish between anger directed at the ingroup and anger directed at an outgroup. When participants in Study 1 reported feeling a high degree of anger, it might have been directed at either (or both) of these targets. To test this idea, in Study 2, we measured 13 rather than 12 emotions, asking participants to separately report anger at the ingroup and anger at the outgroup.

Method

Participants were 445 Introductory Psychology students who completed a Web-based questionnaire as part of their research participation requirement. Participants logged in to a centralized Web page where they signed up for the experiment and then completed the questionnaire in their Web browser. The questionnaire contained the following sections, in order, following an initial page that participants read and clicked to indicate their informed consent. Study 2 administered the individual emotion items first, to remove the possibility of contamination by people thinking of themselves in group terms. (Study 1 demonstrated that question order—individual or group emotions first—does not meaningfully affect any results.)

Individual emotions. Participants were asked, "When you think about yourself as an individual, to what extent do you do you feel each of the following emotions?" They reported the same emotions as in Study 1, except that the single angry item was decomposed into angry at self and angry at other people.

American identification and emotions. After indicating whether they were U.S. citizens, participants completed a four-item American identification measure (the same measure as in Study 1, appropriately reworded) and the 13-item emotions measure, with the wording "When you think about yourself as an American, to what extent do you feel . . . ?" The two anger items were angry at Americans and angry at non-Americans.

Party identification and emotions. After indicating whether they identified more as Democrats or Republicans, participants completed the four-item identification measure and the 13-item emotions measure for their own party. The two anger items were angry at Democrats and angry at Republicans.[4]

Thermometer ratings and action tendencies. Participants rated a variety of groups using a feeling thermometer measure (as in Study 1) and then completed a number of action tendency items related to Democrats, Republicans, and Americans/non-Americans. The action tendency items were combined into scales to measure desires to approach or support (either concretely or symbolically) the ingroup; to confront, argue with, or oppose an outgroup; and to avoid an outgroup.

Results and Discussion

As in Study 1, we repeated each analysis for each of the three groups in this study: Americans ($N = 405$), Democrats ($N = 229$), and Republicans ($N = 173$). Non-U.S. citizens were excluded from all analyses. One individual who reported no variance across the 13 individual emotions and four individuals who reported no variance across the American emotions were also excluded. Additionally, 18 participants reported no variance for the party-level emotions; these individuals were excluded from analysis for the political groups only, as in Study 1.

Group-level emotions are distinct from individual emotions. As in Study 1, individual emotions and group emotions were correlated. The average correlation (averaged across the 13 emotions) ranged from .24 to .33, slightly lower than the .25–.52 correlations found in Study 1.

Also as in Study 1, analyses of variance used a 2 (individual vs. group level) × 13 (emotions) design; see Table 5. In this case, the analysis was within subjects, although we expected to replicate the results of the corresponding between-subjects analysis of Study 1. The key result was again the highly reliable Level × Emotions interactions for all three groups (see Table 5, last column). These significant interactions indicated that the profile of group emotions for each group membership was reliably different from individual emotion profiles. Although correlated with individual emotions, group emotions were distinct from them, replicating Study 1.

Additional analyses examined whether the three group emotion profiles were distinct from each other, to add to the above results showing that each of the three is distinct from individual emotions. A between-subjects ANOVA showed that the Emotions × Group interaction was significant comparing Democrats with Republicans, $F(12, 4334) = 22.25$, $p < .001$. Within-subjects analyses showed that the Emotions × Group interaction was also significant comparing the U.S. group with Democrats, $F(12, 2412) = 213.02$, $p < .001$, and with Republicans, $F(12, 1776) = 346.72$, $p < .001$. Thus, all four emotion profiles (individual and the three groups) were statistically distinct.

The differences between the group emotion means and individual emotion means (which serve as a baseline) are plotted in Figure 1.

[4] At this point in the questionnaire, participants were asked to guess or predict the group emotions felt by members of the other party using the same 13 emotion items. Results involving this measure are not relevant to the four criteria that are the focus of this article and will be reported elsewhere.

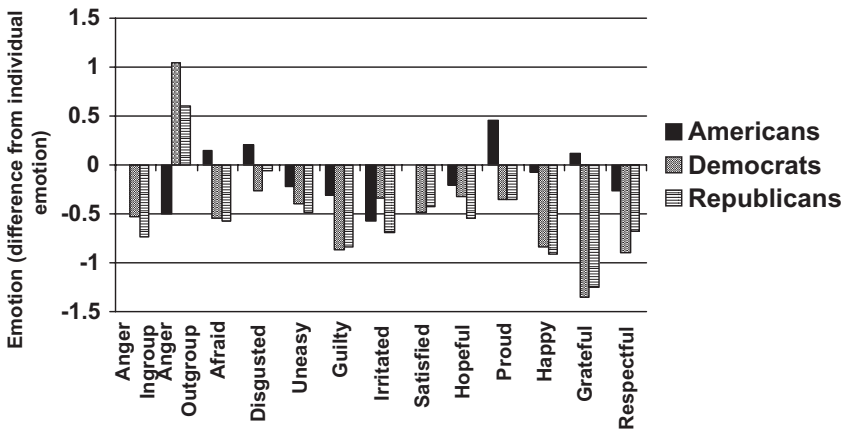

Figure 1. Means for three groups for all emotions, shown as difference from individual level emotion, Study 2.

Several qualitative differences appeared between the profiles of emotions reported at the individual level and for the three groups. Most emotions (both positive and negative) were lower for all three groups than for the individual level. Exceptions were high levels of pride, disgust, and fear as an American and high levels of outgroup anger for both political parties. Each group also had some distinctive emotion tendencies or vulnerabilities. Democrats (compared with Republicans) were higher on outgroup anger and lower on disgust. Emotions for the U.S. group were higher than the party groups on all positive emotions, as well as on guilt, disgust, fear, and anger at the ingroup, but lower on anger at the outgroup. Overall, group emotions differed from individual-level emotions, and each group had a distinctive mean profile of emotions. Later, under Criterion 4, we address the issue of how these emotions predict group-related action tendencies.

Group-level emotions depend on group identification. Once again, all three group identification scales had alpha reliabilities $>$ .90. Positive and negative group emotions correlated with group identification in ways that replicated the results of Study 1 (see Table 6). The correlations for positive group emotions averaged .52 (all 18 were positive), whereas those for negative group emotions (excluding anger at the outgroup) averaged $-.15$ (all 18 were negative). Notably, anger at the outgroup departed from this pattern, showing positive correlations with group identification (averaging .33).[5] Finally, the table shows correlations of individual-level emotions with group identification for comparison. Also replicating Study 1, these were weaker in absolute value than the group emotion–identification correlations in 39 of 39 cases ($p < 4e^{-12}$ by sign test).

These results show that the direction of correlation of a group emotion with group identification does not depend simply on the emotion's valence. Instead, as Kessler and Hollbach (2005) also observed, anger at an outgroup, like positive group emotions of pride, satisfaction, happiness, and so on, correlates positively with identification. In contrast, the other negative emotions correlate negatively with group identification. We earlier discussed two potential reasons, which this study was unable to discriminate: Negative group emotions (guilt, anxiety, dissatisfaction, etc.) could lead to disidentification with the group, or strong group identification might lead group members to reinterpret events in ways that reduce their negative feelings—as other research has also found (Doosje et al., 1998).

Group-level emotions are shared within groups. Subjecting group emotion reports to the same multilevel analysis as in Study 1 produced the results shown in Table 7. Replicating Study 1, members of each group reported group emotions that significantly converged toward the appropriate group's average profile of emotions even when individual emotions were controlled for.[6] In addition, for all three groups, more highly identified group members converged more strongly (see Table 7, last column); recall that in Study 1, where power was lower, this effect was significant for one group and marginal for a second. Thus, across the two studies, there is strong support for this hypothesized interaction.

The interaction of identification with individual emotions (see Table 7, column 4) was significant for two groups—but the effects were in opposite directions. For the American group, there was some support for the idea that highly identified individuals' group emotions may spill over to affect their reported individual emotions (an effect found for Democrats in Study 1 as well). However, because the same effect was significant in the opposite direction for Republicans and not present for Democrats in this study, support for this process remains extremely weak and conditional.

[5] As in Study 1, these correlations do not differ materially if the pleased item is omitted from the group identification scale.

[6] The mean group emotion profiles were calculated using all group members in the sample, so each individual participant contributed to the mean. It might be argued that each person should be excluded from the calculation so the mean would be truly independent of the participant's own data, although given the study *N*s of around 100 and 400, this would make a negligible difference. The sample size in Study 2 was sufficient to permit a direct examination of this issue: We performed the same analysis using a random third of the sample to calculate the group mean emotion profile and the other two thirds of the sample for the multilevel regression analysis. Thus, no participant included in the multilevel analysis contributed data to the computation of the group mean profiles. Results from this approach are virtually identical to those shown in Table 7 (the interaction of Group Identification $\times$ Individual Emotions for the American group fell to a $p < .07$ significance level).

Table 6
Correlations of Individual- and Group-Level Emotions With Group Identification for Each Group, Study 2

	Negative emotions							Positive emotions					
Identification	Anger at ingroup	Afraid	Disgusted	Uneasy	Guilty	Irritated	Anger at outgroup	Satisfied	Hopeful	Proud	Happy	Grateful	Respectful
U.S.													
Individual	−.19*	−.09	−.08	−.06	−.12*	−.09	−.15*	.17*	.17*	.18*	.32*	.31*	.25*
Group	−.39*	−.11	−.27*	−.18*	−.18*	−.12*	.24*	.56*	.49*	.65*	.62*	.50*	.49*
Democrats													
Individual	.06	−.04	.09	.04	−.01	.00	.02	.16*	.07	.06	.15	.16*	.10
Group	−.14	−.08	−.14	−.12	−.02	−.06	.25*	.60*	.48*	.66*	.53*	.52*	.43*
Republicans													
Individual	.01	.02	−.04	−.05	−.02	.14	.12	.09	−.08	.17*	.18*	−.03	−.05
Group	−.21*	−.11	−.08	−.21*	−.09	−.23*	.49*	.52*	.50*	.57*	.46*	.42*	.43*

* $p < .05$.

Overall, the results replicated Study 1 in consistently showing convergence of people's group emotions toward group averages, and in Study 2, the convergence was robustly greater for members who identified more strongly with the group. These patterns support our third criterion.

Group-level emotions regulate intragroup and intergroup attitudes. Study 2's increased sample size and power allowed us to more effectively examine the ability of emotions to predict ingroup- and outgroup-directed action tendencies. As in Study 1, we created dependent variable scales measuring action tendencies that reflect affiliation with or support for the ingroup (positive attitude toward the ingroup, displaying ingroup symbols), confronting or opposing the outgroup (arguing with or protesting against outgroup members), and avoiding outgroup members or symbols. We hypothesized that group emotions would predict these differentiated action tendencies over and above any effects of individual emotions.

Dependent variables measuring ingroup support were the feeling thermometers (for the U.S. and Democratic groups) and an item measuring willingness to display a Republican yard sign (for the Republican group).[7] For outgroup confrontation, for the U.S. group, we used items measuring the desire to tell a critical foreigner that he or she is wrong and to tell a foreign student why the United States is the best nation (reliability = .71). For Democrats, the items assessed the tendency to agree with a Democrat criticizing Republicans and to tell a critical Republican that he or she is wrong (reliability = .71). The same items (with party labels reversed) were used for Republicans, with reliability = .73. To measure outgroup avoidance, for the U.S. group, we measured willingness to sign an anti-immigration petition and to avoid foreign-looking people (reliability = .57). For Democrats, the items assessed desire to live in a city where most residents were Democrats and to avoid media outlets that were biased toward Republicans (reliability = .52). For Republicans, the same items were used with party labels reversed and reliability equal to .41.[8] Exact wordings for all these items appear in the Appendix.

Willingness to perform these behaviors was predicted from anger, guilt, anxiety, and positive emotion indices. Anger was measured with the items angry at the outgroup, disgusted, and irritated (reliabilities for U.S., Democratic, and Republican groups were .45, .70, and .69, respectively). Guilt was measured by anger at the ingroup and guilt (.59, .48, and .57, respectively). Anxiety was measured with the emotions uneasy and afraid (.71, .77, and .55, respectively). The six positive emotions formed scales with reliabilities of .95, .92, and .98, respectively.

Perhaps the most notable aspect of the results for the three groups (see Tables 8, 9, and 10) is the heavy preponderance of significant effects of group (rather than individual) emotions in predicting group-relevant behavioral tendencies. Combining results from these three groups and also the IU group (Study 1, Table 4), 24 of the 48 effects of group emotions on behavioral intentions were significant (50%), compared with 8 of the 48 tests of individual emotions (17%). Moreover, even when individual emotions had effects, they never replicated from one group to another (e.g., individual anger predicted support for the Republican ingroup but not for the IU, U.S., or Democratic ingroups).

In contrast to this, the effects for group emotions replicated well across the four groups. Group anger and positive group emotions

Table 7
Results From Multilevel Analysis Examining Convergence of Group Emotions to Group Average Profile, Study 2

	Coefficients		Interaction with group identification	
Group	Individual emotion	Group average	Individual emotion	Group average
Americans ($N = 349$)	.23***	.76***	.03*	.22***
Democrats ($N = 220$)	.18***	.81***	.01	.23***
Republicans ($N = 160$)	.14***	.89***	−.05***	.11***

* $p < .05$. *** $p < .001$.

[7] A programming error caused the Web server to record only a subset of the action tendency items that were included in the Study 2 questionnaire. For example, we do not have a feeling thermometer rating of Republicans in this study.

[8] Some of these reliabilities are not as high as we would like, but the large N for this study afforded us adequate power for the analyses despite low reliabilities. In addition, we prefer the conceptual breadth obtained from combining related items, compared with analyzing a single item with highly specific content and unknown but probably even lower reliability.

Table 8
Unstandardized Coefficients From Regression Predicting Confrontational, Supportive, and Avoidance Action Tendencies Relevant to the United States (Columns) From Individual and U.S. Positive Emotions and Emotion Scales Measuring Anger, Guilt, and Anxiety, Study 2

Emotion	Confront	Support	Avoid
U.S. anger	0.49***	0.97	0.40***
U.S. guilt	−0.29**	−1.27	−0.10
U.S. anxiety	−0.09	−0.78	−0.14*
U.S. positive	0.58***	10.15***	0.31***
Individual anger	0.32**	−0.07	0.23**
Individual guilt	−0.11	−0.75	−0.11
Individual anxiety	−0.19*	1.82*	−0.05
Individual positive	−0.02	0.92	−0.18

Note. $N = 380$.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 10
Unstandardized Coefficients From Regression Predicting Confrontational, Supportive, and Avoidance Action Tendencies Relevant to Democrats (Columns) From Individual and Democratic Positive Emotions and Emotion Scales Measuring Anger, Guilt, and Anxiety, Study 2

Emotion	Confront	Support	Avoid
Democrat anger	0.35***	2.01*	0.49***
Democrat guilt	0.04	−5.40***	−0.25
Democrat anxiety	−0.10	−0.89	−0.02
Democrat positive	0.36***	7.83***	0.20
Individual anger	0.10	1.62	0.23
Individual guilt	0.00	2.26*	0.01
Individual anxiety	−0.20	−0.71	−0.20
Individual positive	−0.31*	0.41	−0.31*

Note. $N = 227$.
* $p < .05$. *** $p < .001$.

consistently and positively predicted all three action tendencies. Group guilt and group anxiety predicted all three less consistently and in the negative direction—making group members less likely to support their ingroup or confront or avoid the outgroup. Notably, group anger and group positive emotions, the strongest predictors of these action tendencies, are also the emotions that (a) correlate most positively with group identification (see Table 6, as well as Kessler & Hollbach, 2005) and (b) are categorized as approach emotions, which motivate people to move toward an object (either in a positive, affiliative way or to attack, in the case of anger; Harmon-Jones & Allen, 1998). We discuss these results further in the General Discussion.

General Discussion

Summary of Results

The results of these studies support all four of our conceptual criteria, providing strong and consistent evidence that emotions can be truly group-level and not only individual-level phenomena.

Table 9
Unstandardized Coefficients From Regression Predicting Confrontational, Supportive, and Avoidance Action Tendencies Relevant to Republicans (Columns) From Individual and Republican Positive Emotions and Emotion Scales Measuring Anger, Guilt, and Anxiety, Study 2

Emotion	Confront	Support	Avoid
Republican anger	0.71***	0.50**	0.70***
Republican guilt	−0.31	−0.56**	−0.40**
Republican anxiety	−0.24	−0.34*	−0.02
Republican positive	0.44***	0.63***	0.43***
Individual anger	0.17	0.42*	0.10
Individual guilt	−0.08	0.00	−0.13
Individual anxiety	−0.02	−0.09	0.05
Individual positive	−0.20	−0.19	−0.08

Note. $N = 162$.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Group emotions are meaningfully distinct from the same person's individual emotions, they are related to the person's degree of group identification, they are socially shared among members of the same group, and they serve to regulate intragroup and intergroup attitudes.

Group-level emotions are distinct from individual-level emotions. Prior research (e.g., Mackie et al., 2004; Yzerbyt et al., 2003) has already demonstrated distinctions between individual and group-based emotions in response to a specific precipitating event: People can feel emotions on behalf of a group or fellow group members who experience such an event even when the perceiver is not personally affected by it. Both of the current studies demonstrate in more detail that profiles of chronic or generalized group emotions, triggered by the mere contemplation of group membership rather than by a specific event, are also meaningfully distinct from individual emotion profiles. Individual and group profiles do not merely differ in the overall level or intensity of emotions reported: They are qualitatively distinct. The fact that this result was obtained in a between-subjects design in Study 1 indicates that it is not simply due to an order effect, that is, a conversational demand to report different emotions as a group member when one has just reported emotions as an individual.

Group-level emotions depend on group identification. Across two studies and four distinct group memberships, results showed a strong relation between positive group emotions and ingroup identification, as expected. The relation of anger at the outgroup to group identification was also positive (Study 2), consistent with other research (Kessler & Hollbach, 2005). In contrast, negative group emotions besides anger were more weakly and generally negatively related to identification. The negative correlation could have been due to strong group identification leading people to reinterpret and reappraise group-related events to avoid negative feelings (Doosje et al., 1998). An alternative possibility is that negative emotions motivate a decrease in identification with the group. In general, both of these causal processes probably operate. Future research measuring both group identification and emotions over time will allow examination of the temporal relations of

emotions and group identification, strengthening conclusions regarding which causes the other in a given instance.

Group-level emotions are socially shared within an ingroup. Our results show unequivocally and for all four groups that people's group-level emotions are socially shared. Moreover, they are generally shared more strongly by people who identify more with the group. The amount of convergence is substantive, large, and meaningful. To illustrate the magnitude of the convergence toward the group emotion profile implied by these analyses, take the Democratic group as an example (see Table 7; results are qualitatively similar for the other groups in both studies). Say an individual reports a level of a particular individual emotion such as irritation of 3 (on a 7-point scale), whereas the average level of group irritation reported by Democrats is 5. What level of group irritation will this individual report feeling as a Democrat? Someone at the average level of group identification would be expected to report a mean of 4.54 for the group-level emotion—moving more than 75% of the way from his or her individual response toward the group average.[9] Stronger group identification leads to stronger convergence: If this individual was one scale point above the average on group identification (also a 1–7 scale), the predicted level of the group emotion would be 5.08 (not significantly different from the group mean level of 5.00). In contrast, someone one scale point below average on group identification would be expected to report a group emotion of 4.01. This strong convergence has important implications, to be discussed below.

Group-level emotions regulate intergroup and intragroup attitudes and behavioral tendencies. Both studies (especially Study 2, with its larger sample) show that action tendencies involving ingroup support and solidarity, outgroup confrontation, and outgroup avoidance are directly predicted by group emotions but not by individual emotions, which generally had few effects. Most notable in our results was the fact that anger at the outgroup and positive group emotions proved the most powerful predictors across all categories of action tendencies. The fact that anger at the outgroup predicts the desire to engage in confrontational behavior is expected from standard emotion–action theory and previous results (Frijda et al., 1989; Mackie et al., 2000). The relation of anger at the outgroup to tendencies to support and affiliate with the ingroup is also consistent with previous findings (Kessler & Hollbach, 2005) showing that this group emotion tends to increase ingroup identification. Why is anger at the outgroup related to outgroup avoidance tendencies? We speculate that this group emotion might lead people to avoid the outgroup as part of a behavioral regulation strategy: If a person feels that being around outgroup members might anger him or her to the extent that he or she might attack or confront the outgroup, the person might well choose to avoid such situations to avoid the danger of acting inappropriately. In making this argument, we differentiate two things. On the one hand, there are the action tendencies automatically linked to anger at the outgroup (which, consistent with existing emotion theory, we assume include a desire to confront or attack the outgroup). On the other hand, there are the self-regulatory actions that people might take in real-life situations when they feel angry (or anticipate feeling angry), which might include avoidance as a way of escaping temptations to engage in socially disapproved behaviors. Future research might profitably ask questions designed to distinguish between these two types of emotion-driven actions.

Positive emotions also predicted ingroup support and outgroup confrontation and avoidance action tendencies. This finding is consistent with the fact that positive emotions relate strongly to group identification (see Criterion 2) and are regarded as approach emotions (Harmon-Jones & Allen, 1998). Given this relation, it makes sense that people who feel positively about their group and identify strongly with it should want to act in these ways. Negative emotions other than outgroup-directed anger had weaker effects in these analyses. This should not be taken as indicating that group-based guilt and anxiety are never important, however: Such effects have already been demonstrated for other types of action tendency measures. A number of researchers, for example, have demonstrated effects of group-level guilt on various action tendencies related to apologizing and making reparations for past group-based offenses (Branscombe & Doosje, 2004).

The main conclusion of these analyses in regard to the fourth criterion is the importance of group-level emotions in predicting group-relevant action tendencies even when individual-level emotions are statistically controlled, the pattern that we theoretically predicted.

Group Emotion Convergence: Implications and Unanswered Questions

In particular, the finding that group-level emotions are shared within important ingroups has intriguing implications. First, consensus within people's important groups defines reality for them (Hardin & Higgins, 1996; Sherif, 1936). For this reason, socially shared group emotions, as compared with individual emotions, are likely to be seen as true, objective, and externally driven in a type of social construction of emotional reality that parallels the effects of consensus in the social construction of beliefs. Just as belief consensus increases certainty, reduces anxiety, and motivates action (Kelley, 1972; Milgram, 1992; Turner, 1991), emotional consensus may also have implications for emotional well-being and social action. Consider an individual (say, a woman or a member of a stigmatized minority group) who experiences negative life events and reacts with anger, frustration, or disappointment. As long as the events are considered as occurring at the individual level, the emotional reactions will be individual level as well. Research on the psychology of stigma (Major et al., 2002; Meyer, 2003) has amply demonstrated that damage to self-esteem and psychological and physical well-being are likely to follow. At some point, however, the individual may come to realize that these negative events are typical experiences for the ingroup and may shift from thinking about them and reacting emotionally as an individual to responding as a group member. Now it is not "I" but "we" who feel this way; individual-level emotions are replaced by group-level emotions. The emotions and other responses, because they are shared, come to be seen as true and objective, the events as intrinsically angering. This process may play some role in the self-protective effects of attributing negative outcomes to discrimination against one's ingroup (Crocker & Major, 1989). The process may also strengthen people's motivation to work for social

[9] These predicted values are computed from the full equation, including the intercept term (not shown in the table because it is of little substantive interest).

change, as the problems are seen as objective events out there rather than as one's own idiosyncratic and perhaps inappropriate emotional reactions to unavoidable life events. In other words, making a transition from individual-level to group-level emotional responses may be a form of consciousness raising with important consequences both personal and political.

As a second implication, emotion convergence within groups may affect people's impressions of group characteristics. Magee and Tiedens (2006) recently demonstrated that when members of a group express similar (as opposed to dissimilar) emotions, observers see the group as having more of a common fate, an important dimension of group entitativity (Campbell, 1958). In turn, entitativity has many implications for the ways people think about and act toward groups (Hamilton & Sherman, 1996). Thus, convergence or sharing of group emotions may shape the ways observers (and possibly group members themselves) perceive and act toward the group. In one demonstration of such an effect, Mackie et al. (2006) found that a highly entitative group thought to be angry was avoided more than a less entitative group thought to be angry. The avoidance was mediated by observers' beliefs about the extent to which the anger would be shared among group members.

Third, shared emotions within a group may influence the way group members feel about each other by leading to increased feelings of closeness and interpersonal intimacy. This suggestion is based on findings that viewing one's romantic partner as similar to oneself increases relationship closeness and satisfaction (Cross & Gore, 2004). A similar dynamic may be at work in situations where members of a larger group (not just a couple) experience similar emotions due to external events—for example, when a university's sports team wins a national championship. Students and fans may have a strong feeling of connectedness, closeness, and intimacy and may exchange hugs with strangers and so on based on the perception that they are experiencing the same emotion. For these reasons, feelings of closeness with other group members should be promoted by the group emotion convergence that we demonstrate here. Group closeness and cohesion in turn have other downstream effects. Parkinson, Fischer, and Manstead (2005) suggested that greater group cohesion increases mutual social influence, making it more likely that group members will interpret and respond to future emotional events in similar ways. Thus, an event that prompts shared group pride (emotion) might promote greater interaction, cohesiveness, and influence (behavior) in a way that makes interpretation of a future event (appraisal) even more likely to result in group pride (emotion), and so forth.

Our demonstration of convergence, however, leaves one important question unanswered: what process or processes are responsible for the convergence? Several theoretical mechanisms are possible. One is emotional contagion (Neumann & Strack, 2000), meaning that people tend to take on the emotions displayed by fellow ingroup members with whom they interact. The contagion mechanism may be more relevant to groups interacting face to face than to the social category groups we used in this study. Still, larger groups may be affected by emotional contagion when leaders or prototypical members are portrayed in the media and other group members model their emotions.

A second mechanism is that people conform to ingroup norms with regard to their group-level emotions. It has long been known that when people strongly identify with a group and their membership is made salient in a specific situation, they tend to conform to group norms or move closer to the group prototype in their behaviors and their attitudes (Hogg & Turner, 1987; Simon & Hamilton, 1994; Spears et al., 1997). Although existing research has not considered emotions as a domain in which people move toward a group prototype, the same process should operate with emotions. Of course, conformity to a group norm does not imply a superficial process of merely putting on an appearance for public display; group norms are routinely internalized (regarded by group members as the right and proper ways to act and feel), and the same would presumably be true of group emotion norms (Turner et al., 1987).

As a third possible mechanism, group emotion convergence may arise because thinking about a group membership makes key group-relevant events salient and appraisals of such events are generally shared among group members, leading to a common profile of emotions. For example, across a number of individual Americans, the same limited number of events and situations come to the fore when they think of themselves as Americans: military conflicts, danger of attacks by militant anti-Americans, and so on. So, these group members might all report feeling angry because they are all responding to more or less the same events in more or less the same way—rather than because they are influenced (through contagion) by others' expressions of anger or because they are aware of a norm that Americans are angry.

In general, all three of these processes (emotional contagion, conformity to emotion profiles that function as group norms, and shared reactions to salient group-relevant objects or events) may be important causes of group emotion convergence. Their relative importance almost certainly varies across types of groups and particular circumstances. This article has demonstrated the existence and robustness of convergence (across several different types of groups in two studies), but these studies were not designed to distinguish among the potential reasons for convergence. Future research can and should take these further steps. People can be exposed to information about other group members' group-level emotions to determine whether that influences their own group emotions. We hypothesize (a) that influence from an ingroup member would be greater than from an outgroup member and (b) that influence from others' group-based emotions would be greater than that from others' individual-level emotions. Future studies could also induce membership in a minimal group and then expose people to information about emotionally salient events (e.g., the group is under threat from a dangerous rival). This procedure would allow determination of the amount of convergence due to shared appraisals of salient group-relevant events in the absence of information about how other group members are responding emotionally. Finally, future studies can ask people about their group-based emotions and also about the events that they see as causing those emotions and their appraisals of them. If individuals who show high levels of convergence (agreement) on their emotions also tend to report similar events and appraisals, that would suggest that the common salience of group-relevant events is an important contributor to emotion convergence.

It is unlikely that just one of these three processes is solely responsible for group emotion convergence. Rather, the issue is what contribution is made by each of the three processes, for what types of groups (e.g., face to face vs. social categories), under what

circumstances. A good deal of future research might fruitfully be devoted to answering this question.

Two Strategies for Emotion Research

As described in the introduction to this article, at least two general approaches have been used in the study of individual-level emotions, and both are applicable as well to group emotions. Researchers can study emotional responses to specific objects or events, an approach that we have taken in some of our previous research on IET. For example, in Miller et al. (2004), we asked White students about their emotional responses when they encountered or thought about African Americans as a group. As a second approach, people can be asked to indicate the extent to which they feel a series of emotions in general. The latter research strategy, used in these studies, gets at general emotional feeling profiles rather than at responses to specific objects or events. Research by Watson and Clark (1992) and others on individual-level emotions has demonstrated that such profiles can be reliably assessed and that they relate in meaningful ways to other variables (such as individual differences in personality). These two research approaches are complementary, aimed at uncovering different (though related) aspects of the overall picture of people's emotional life.

Chronic emotional feelings and responses to particular events are related in several ways. First, one's general emotional profile acts as a baseline, a starting point for responses to particular events. At the individual level, a person who is high on angry feelings in general, for example, might be expected to become especially angry when reacting to an insult or provocation. At the group level, a person who reports generally high levels of guilt when thinking about a particular social identity may experience particularly high levels of group guilt when reacting to reminders of his or her group's past misdeeds and offenses. Second, episodic emotional reactions to specific important or frequently encountered objects or events may be one important contributor to general emotional feelings. At the group level, for example, it is plausible that when the United States is at war, Americans who identify with that group may think frequently about being attacked and feel angry at the attackers, such as the September 11 hijackers. It is plausible that such reactions, repeated over time, contribute to the generally high level of angry feelings reported by people when thinking about themselves as Americans. Supporting this idea, several studies have compared repeated online measures of immediate emotional experience and later self-reports and have confirmed that these are strongly related (Barrett, 1997; Parkinson, Briner, Reynolds, & Totterdell, 1995). For example, in Barrett (1997), the average of online ratings of emotions sampled several times per day over the 90-day study strongly predicted general retrospective ratings of emotion over that same period. This is evidence for the connection that we hypothesize between emotional reactions at specific times and people's general reports of emotional feelings, as measured in these studies.

If people experience general emotional feeling profiles as group members, what implications might this have for people's thoughts and behavior in intergroup situations? First, frequent occurrences of emotional states linked to particular group identities should build up associations of specific emotions with particular identities. Over time, people should come to display relatively stable emotional profiles, such as an association of a national identity with pride or an identity as a member of a conflictual group with anger. The types of findings we report may thus offer leverage in understanding why and how some identities might become associated with (and therefore come to automatically elicit) characteristic patterns and profiles of emotions. Second, our results in these studies under the fourth criterion show that emotional feeling profiles are strong and reliable predictors of attitudes and behavioral tendencies associated with intergroup relations—tendencies such as affiliating with or supporting an ingroup or avoiding, attacking, or confronting an outgroup. All of these reasons encourage continued research consideration of people's chronic emotional feeling profiles and the ways they shift based on shifting social identities, as a complement to research aimed at understanding people's immediate emotional reactions to specific objects or events, such as outgroups.

Conclusion

In recent decades, it has become clear that people possess different levels of the self (individual vs. collective) and distinct collective selves (social identities) corresponding to their significant group memberships (Tajfel, 1978). The current research examined the profiles of emotions that people experience with regard to those different selves, focusing on the question of whether the emotions can be said to be truly group level. Group-level emotions show predicted patterns that illustrate their meaningfulness, coherence, and functionality: differentiation from individual-level emotions, relations to group identification, convergence within an ingroup, and regulation of attitudes and behaviors related to that specific group.

The conclusion that emotions can be group-level has significant implications. For one thing, like much other research, our studies illustrate the great flexibility that people show in adopting one or another individual or collective self. These studies show that within seconds, when specific questions make people shift from thinking about one group identity to another, they report different, meaningfully predictive, and consensually shared patterns of emotions for each identity. The immense flexibility of the online construction of the self has been noted before (E. R. Smith, Coats, & Walling, 1999; Turner et al., 1987; Turner, Oakes, Haslam, & McGarty, 1994). With these studies, we have shown that not only cognitive self-representations but also emotions, with all their functionality and self-regulatory power, can be rapidly constructed online for many distinct social as well as individual identities. In turn, this flexibility means that shifts of identity may play a role in emotion regulation—for example, people may disidentify from a group that often leads to negative emotions (E. R. Smith & Mackie, 2006). In general, group-level emotions may be a functional part of a larger scale identity regulation process, affecting the fundamental ways that people think about themselves in relation to other people and social collectives.

Finally, group-level emotions relate to action tendencies, particularly for collective actions (just as individual emotions motivate individual actions). Thus, group emotions should be important causes of people's participation in political campaigns, social movements, strikes, demonstrations, and other collective acts—and therefore, in turn, be important causes of large-scale social change.

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Appendix

Item Wordings for Action Tendency Items in Studies 1 and 2

Items Reflecting Ingroup Support and Affiliation

Indiana University (IU), American, Democrat: Please use this feeling thermometer scale of 0–100 to tell us how warm (favorable) or cold (unfavorable) you feel toward these groups: [rating of ingroup]

Republican: I would display a yard sign in support of a Republican candidate.

Items Reflecting Outgroup Confrontation

IU: I would tell a Purdue student why their university is inferior to IU. If I were to hear a Purdue student criticize something about IU, I would tell the PU student why he or she is wrong. I would be willing to tell a Purdue student why Indiana is a better university.

American: If I were to hear a foreigner criticize something about the United States, I would tell the foreigner why he or she is wrong. I would be willing to tell a foreigner why the United States is the best country on Earth.

Democrat, Republican: If I were to hear a Democrat criticizing Republicans, I would tell the Democrat that he or she is correct. If I were to hear a Republican criticizing Democrats, I would tell the Republican why he or she is wrong. [labels reversed for Republicans]

Items Reflecting Outgroup Avoidance

IU: If I were to hear a Purdue student criticize something about IU, I would try to avoid the situation.

American: I would sign a petition to stop additional immigration to the United States. I try to avoid talking to people who look like they are not from the United States.

Democrat, Republican: I would like to live in a city where most of the residents are Democrats. I would not watch or listen to a station that seems biased in favor of Republicans. [labels reversed for Republicans]

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