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# Reports

# Intragroup dissonance: Responses to ingroup violation of personal values

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#### Abstract

The present research draws on cognitive dissonance theory [Festinger, L. (1957). A theory of cognitive dissonance. Stanford, CA: Stanford University Press] and social identity theory [Tajfel, H. (Ed.). (1978). Differentiation between social groups. London: Academic Press] to examine how group members respond to discrepancies between their personal values and the behavior of an ingroup. In two experiments we manipulated whether participants' ingroup violated a personal value (providing basic healthcare in Experiment 1 and self-reliance in Experiment 2) and measured participants' emotional responses and strategies for reducing discomfort. As expected, individuals experienced psychological discomfort (but not negative self-directed emotion), when an ingroup, but not when an outgroup, violated a personal value, and this discomfort mediated participants' disidentification with their group (Experiment 1) and value-adherence activism (Experiment 2).

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I saw an orderly buildup of evil, an accumulation of inhumanities, each of which alone is sufficient to make men hide in shame... The time had come—indeed it was past due—when I had to disavow and dissociate myself from those who in the name of peace—burn, maim, and kill... I could do no less for the salvation of my soul. (Dr. Martin Luther King Jr., on his decision to protest the Vietnam War; April, 1967; Carson, 1998)

Dr. King's decision to speak out against the Vietnam War was spawned by his belief that the United States was violating the humane values he so strongly endorsed (Carson, 1998). His uneasiness with the violation led King to disassociate himself from this group and to work to

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change the behavior of that group. This example illustrates the importance of understanding how people negotiate discrepancies between their own personal values and the behavior of important groups with which they identify. Social psychologists have long been interested in how people experience and respond to inconsistency within their own group (Kelley & Woodruff, 1956), and have postulated a range of processes (e.g., balance; Heider, 1958) that can shape these responses. In this paper, we propose that cognitive dissonance is a key process that likely underpins responses to ingroup violation of personal values. In particular, the present research draws on cognitive dissonance, as well social identity theory, to investigate "intragroup dissonance," a discrepancy between one's personal beliefs or values and the behavior of an ingroup that results in psychological discomfort.

Festinger (1957) postulated that inconsistency between one's cognitions and one's behavior results in cognitive dissonance, an aversive temporary state that individuals are motivated to reduce. Fifty years of research has provided substantial support for this fundamental proposition (see

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Harmon-Jones & Mills, 1999), and also demonstrates the central role of self-standards and values to dissonance processes (see Stone & Cooper, 2001). Because individuals derive a part of their self-concept from group membership, or social identity (Tajfel & Turner, 1979), dissonance may not only be influenced by one's own behavior, but also by the behavior of groups to which one belongs (Cooper & Stone, 2000). Indeed, in the classic case study, When prophecy fails, Festinger, Riecken, and Schachter (1956) found that the group can prevent cognitive dissonance. More recently, whereas Matz and Wood (2005) found that individuals experience cognitive dissonance when they learn that other ingroup members hold opposing opinions, Norton, Monin, Cooper, and Hogg (2003) demonstrated that people can experience vicarious dissonance when observing an ingroup member give a speech that is counter to the ingroup member's attitude.

The present research investigated whether cognitive dissonance is produced when the actions of an ingroup violate personal values, irrespective of an individual's role in the action. Given the importance of social identity to the self-concept (Tajfel & Turner, 1979) and the link between personal values and self (Bilsky & Schwartz, 1994), we propose that two antecedents to intragroup dissonance are identification with the group and personal endorsement of the value the group's actions violate.

Intragroup dissonance, as conceived in the present research, arises when the actions of an ingroup are inconsistent with one's *own* beliefs or values. Whereas Matz and Wood (2005) explored the extent to which attitudinal disagreement produces dissonance and Norton et al. (2003) examined vicarious dissonance that occurs when people witness an inconsistency between attitudes and behavior within another ingroup member, we investigated the extent to which inconsistency between one's *own* values and the group's *actions* produces dissonance.

## **Experiment 1**

Experiment 1 provided the initial test of whether ingroup behavior that violates a personal value produces the psychological discomfort associated with cognitive dissonance, distinct from other negative emotions. Within a 2 (group: ingroup vs. outgroup) × 2 (violation: violation vs. no-violation) design, participants learned that either an ingroup (the United States) or an outgroup (Australia) did or did not violate participant's personal value (providing basic healthcare to citizens). To assess the hypothesized mediating role of dissonance-related discomfort, we measured affective reactions immediately following this information, and then measured responses hypothesized to reduce dissonance (Elliot & Devine, 1994). When dissonance occurs because of the actions of an ingroup, additional group-based strategies for reducing dissonance, such as disidentification (McKimmie et al., 2003), may also be available. Therefore, we examined both attitude-change and disidentification.

We hypothesized that participants in the ingroup violation condition, relative to the other conditions, would report greater dissonance-related psychological discomfort but not greater negative self-directed emotion, and also would be more likely to implement a dissonance-reduction strategy. We examined the group-related strategy of disidentification, as well as the individual-level strategy of attitude-change. We also expected dissonance-related discomfort to mediate the dissonance-reduction response. Finally, given that importance of cognitions is associated with magnitude of dissonance (Festinger, 1957, p. 16), we also examined whether the degree of support for the value would moderate the predicted responses.

## Method

# Participants and design

One hundred and sixty-one undergraduate students (95 women, 66 men; mean age = 18.93; all American citizens) participated in partial fulfillment of a course requirement.

## Procedure and materials

Participants, who were randomly assigned to conditions, completed questionnaires in a group setting. In all conditions, participants first reported their attitudes regarding whether the United States should provide basic healthcare for all Americans, indicating their agreement (from  $1=strongly\ disagree$  to  $7=strongly\ agree$ ) to three items: "All Americans should be given basic healthcare by the United States," "A primary clause of the U.S. government's social policies should be to provide essential medical treatment to those in need," and "The United States should provide basic healthcare to all Americans." The items were averaged to create a measure of initial attitudes toward the ingroup upholding the value ( $\alpha=.91$ ).

Participants then reported their identification with the United States, rating statements (from  $1 = strongly \, disagree$  to  $7 = strongly \, agree$ ) used by Sidanius, van Laar, Levin, and Sinclair (2003) (see also Doosje, Ellemers, & Spears, 1995): "I am proud to be an American," "Being an American is an important part of my identity," and "I feel very close to other Americans" ( $\alpha = .79$  for initial identification).

Participants next read a definition of the principle of basic healthcare, paraphrased from the mission statement of the World Health Organization, which concluded, "As there is a basic human right to health, everyone should receive equitable access to basic medical treatment necessary for living." Participants indicated the extent to which they endorsed the value from 1 (do not support the principle) to 7 (strongly support the principle) and, to make the value salient, were asked to write a short essay explaining the aspects of the value they support.

Participants then read one of four one-page reports which reported that the value was or was not violated by the ingroup (the United States) or the outgroup (Australia). Although Australia does provide healthcare coverage,

pilot tests indicated that participants of the same population were unfamiliar with Australia's healthcare system and a separate set of tests also demonstrated that the reports were distinguishable by violation, as intended. In the ingroup violation condition, the report read, in part, "The United States has done little to help those who do not have medical insurance...over 41 million Americans have no health insurance...over 18,000 Americans die each year because of a lack of healthcare services." The ingroup no-violation report read, in part: "The United States helps those who do not have medical insurance... The United States invests billions of dollars in health care coverage by directly providing insurance...thousands of Americans lives are saved because of Medicare and Medicaid." In the outgroup conditions, the nation and nationality was Australia and Australians, respectively, and the population, as well as names of policies were changed.

Participants rated their affective response "at present" on 1 (does not apply at all) to 7 (applies very much) scales. Interspersed items were averaged to create measures of dissonance-related discomfort (uncomfortable, uneasy, and bothered;  $\alpha = .86$ ) and negative self-directed emotion (angry with myself, dissatisfied with myself, disgusted with myself, and annoyed with myself;  $\alpha = .91$ ).

Next, participants again reported their attitudes  $(\alpha = .75)$  and identification with the United States  $(\alpha = .85)$  using the same items employed for the initial measures. To assess whether participants identified less with Australia, compared to with the US, participants in the outgroup condition also reported their identification with Australia using three items  $(1 = strongly\ disagree\ to\ 7 = strongly\ agree)$ : "I feel very close to Australia," "I identify with Australia," and "I feel very similar to Australians"  $(\alpha = .84)$ .

## Results

We first examined the hypothesized antecedents to intragroup dissonance and then explored the effect of violation condition, group, degree of endorsement of the value, and their interactions on affective responses, attitude-change, and disidentification using multiple regression. For these analyses, degree of support for the value was centered and violation condition (no-violation = 0, violation = 1) and group condition (outgroup = 0, ingroup = 1) were dummy coded (Aiken & West, 1991).

## Antecedents of intragroup dissonance

The two hypothesized antecedents to intragroup dissonance were present. Participants supported the value of providing basic healthcare to citizens (M = 5.86, SD = 1.01, median = 6.00) and there was also a high level of identification with the ingroup (M = 5.27, SD = 1.21). As expected, identification with the outgroup (M = 2.22, SD = 1.11) was significantly lower than initial identification with the ingroup, t(78) = 14.78, p < .001. These effects did not differ by condition, ps > .17.

Psychological discomfort and negative self-directed emotion

For the multiple regression that examined the extent to which violation condition, group, degree of endorsement of the value and their interactions explained psychological discomfort, the only significant effect was the predicted two-way interaction between violation and group conditions,  $\beta = .45$ , t(153) = 3.73, p < .001. Participants in the ingroup violation condition (M = 4.38, SD = 1.28) reported significantly more psychological discomfort than did participants in the ingroup no-violation condition (M = 2.54, SD = 1.13), F(1, 157) = 44.06, p < .001,  $\eta^2 = .35$ . However, participants in the outgroup violation condition (M = 2.76, SD = .88) reported statistically equivalent levels of psychological discomfort as participants in the outgroup no-violation condition (M = 2.39, SD = 1.30), F(1, 157) =2.34, p = .13. Furthermore, a Tukey HSD procedure for pairwise comparisons revealed that the ingroup violation condition was significantly different than the other three conditions on psychological discomfort, p < .05, with no differences among the other conditions.

The multiple regression analysis on negative self-directed emotion revealed only a main effect of violation condition,  $\beta = .30$ , t(153) = 2.76, p < .01. Participants in the violation condition experienced more negative self-directed emotion (M = 2.50, SD = 1.30) than did participants in the no-violation condition (M = 2.09, SD = 1.27).

## Attitude-change

A measure of attitude-change was calculated by subtracting participants' initial measure of attitudes toward the US providing basic healthcare to its citizens (i.e., before learning about the group's actions) from the second measure of attitudes (i.e., after learning about the group's actions). The analysis revealed only the two main effects, for violation condition,  $\beta = .22$ , t(153) = 2.02, p < .05, and group,  $\beta = .39$ , t(153) = 3.17, p < .05. Participants decreased their support for the US providing healthcare more in the violation condition (initial measure: M = 5.60, SD = 1.27; second measure: M = 5.34, SD = 1.15) than in the no-violation condition (M = 5.67, SD = 1.06; M = 5.59, SD = 1.27). They also decreased their support for the US providing basic healthcare in the ingroup conditions (initial measure: M = 6.12, SD = 1.09; second measure: M = 5.68, SD = 1.17), but not in the outgroup conditions (M = 5.14, SD = 1.11); M = 5.24, SD = 1.09).

## Disidentification

A measure of disidentification was calculated by subtracting participants' initial measure of identification with the ingroup (i.e., before learning about the group's actions) from the second measure of identification with the ingroup (i.e., after learning about the group's actions). Disidentification was then regressed on violation condition, group condition, support for the value and their interactions. The only significant effect was the interaction between group and violation condition,  $\beta = .17$ , t(153) = 2.54, p < .05.

Simple effects, using repeated measures, examined the effect of violation on change in identification for the ingroup and outgroup conditions separately. Whereas participants in the ingroup conditions disidentified with the group in the violation condition, but not the no-violation, F(1,153) = 7.55, p < .05,  $\eta^2 = .06$ , in the outgroup conditions, there was not a change in identification by violation condition, F(1,153) = 1.14, ns (see Fig. 1).

## Mediation analyses

To test whether psychological discomfort explained the relation between violation condition and disidentification in the ingroup conditions, a mediation analysis was conducted, which controlled for negative self-directed emotion. The requirements for showing mediation were successfully met (Kenny, Kashy, & Bolger, 1998): (a) ingroup violation condition was significantly related to disidentification,  $\beta = .33$ , t(76) = 3.12, p < .01; (b) ingroup violation condition also significantly predicted the mediator psychological discomfort,  $\beta = .61$ , t(76) = 6.95,  $p \le .001$ ; and (c) psychological discomfort was significantly related to disidentification,  $\beta = .28$ , t(76) = 2.07, p < .05, when the effects of ingroup violation condition and negative self-directed emotion were controlled. In addition, the effect of violation condition became nonsignificant,  $\beta = .17$ , t < 1. A Sobel test, which assessed the significance of the reduction, was significant, Z = 1.99, p < .05. These results demonstrate that psychological discomfort explained the tendency to disidentify in the ingroup violation condition.

# Discussion

Experiment 1 provides initial support for intragroup dissonance. Participants who were informed about an ingroup violating a personal value experienced greater

psychological discomfort than participants informed both about the ingroup adhering to the value and those informed about an outgroup violating the value. Moreover, like classical demonstrations of cognitive dissonance, Experiment 1 found that psychological discomfort motivated participants to implement a dissonance-reduction strategy. Specifically, participants disidentified with the ingroup in the violation condition, which was mediated by the greater psychological discomfort experienced in this condition.

We did not find, however, that participants' level of support for the value moderated the present effects or that attitude-change was used to reduce dissonance. The absence of these effects may be attributable to the range of responses and high support for the value. The range of support for this value was limited (68% of the sample chose 6 or 7 on the scale) and support was high (mean and median were above 5.86). While the restricted range of responses may have decreased the likelihood of demonstrating moderation, the high-level of support for the value may have made dissonance-induced attitude-change less likely (see Devine, Tauer, Barron, Elliot, & Vance, 1999). This interpretation is consistent with the finding that strongly endorsed attitudes are highly resistant to dissonance-related attitude-change (Cooper & Mackie, 1983). Experiment 2 thus focused on a value reflecting a greater range than that used in Experiment 1 and examined a new dissonance-reduction strategy, behaviorchange.

# **Experiment 2**

Experiment 2 was designed to extend the previous findings in three important ways. First, by using a value (selfreliance) with a broader range of endorsement, we provided a stronger test of whether support for the value

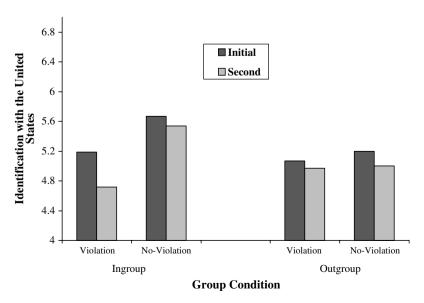


Fig. 1. Experiment 1 disidentification results as a function of violation and group condition.

can moderate intragroup dissonance. We expected that greater support for the value would be associated with increased psychological discomfort in the violation condition. Second, because intragroup dissonance derives from group behavior, we examined negative ingroup-directed emotion, as well as negative self-directed emotion. Third, Experiment 2 was designed to test for behavior-change as a dissonance-reduction strategy, which has been shown to alleviate dissonance at the individual-level (Stone, Wiegand, Cooper, & Aronson, 1997). We measured valueadherence activism, the degree to which participants were motivated to work to change the behavior of the group to be in line with their values. If value-adherence activism serves as a dissonance-reduction strategy, we would also expect that subsequent options to reduce dissonance (disidentification) would not be necessary.

In Experiment 2, participants indicated their support for the value and read a description of the ingroup either violating (violation condition) or adhering to the value (no-violation condition) of self-reliance. After reading about the ingroup's behavior, we measured affective responses, activism, and change in identification.

We predicted that participants who read about an ingroup violating a personal value would experience the most dissonance-related psychological discomfort. Given the placement of the value-adherence activism measure, prior to the second measure of identification, we anticipated that value-adherence activism, but not disidentification, would serve as a dissonance-reduction strategy (Elliot & Devine, 1994). We expected dissonancerelated discomfort to motivate participants to bring the behavior of the group to be in line with their values, or greater value-adherence activism, in the violation condition, compared to the no-violation condition. Moreover, we expected that those who endorsed the value more would be especially likely to experience dissonance-discomfort and engage in activism in the violation condition.

## Method

## Participants and design

Seventy-nine undergraduate students (39 women, 40 men; all US citizens; mean age = 18.89) participated in partial fulfillment of a course requirement.

## Procedure and materials

Participants were randomly assigned to violation condition and first reported their identification with the United States using the same items and scale as in Experiment 1 ( $\alpha = .64$ ). Participants next read a definition of the principle of self-reliance, paraphrased from statements by the American Civil Rights Institute, which indicated that "individuals should have primary responsibility for their own welfare." Participants reported their endorsement of the value from 1 (do not support the principle) to 7 (strongly support the principle) and wrote a short essay

explaining aspects of the value they supported or opposed. There was a moderate level of support for the value (M = 4.95, SD = 1.29, median = 5.00) and large range (6.00; 2-7) on the scale.

The violation manipulation was introduced at this point. In the violation condition, participants were provided with information that the US violated the value of self-reliance: "Reports compiled by the U.S. Department of Commerce...have demonstrated that the U.S. has set aside a good portion of money for the poor, minorities, and women... For example, the U.S. currently has a 'set aside' program that reserves a portion of federal contracts solely for bids from companies owned by minorities and women...the criteria for allocating this money is often not based solely on merit." The no-violation condition reported information about the US adhering to the value of self-reliance: "Reports compiled by the U.S. Department of Commerce...have documented that the U.S. is decreasing the amount of money for set aside programs for the poor, minorities, and women... For example, the U.S. currently reserves more money solely for bids from companies that have a proven success record...the criteria for funding in U.S. is moving toward merit-based programs, rather than 'set aside' programs."

All participants were then given the same affect measures as Experiment 1, psychological discomfort ( $\alpha = .89$ ), negative self-directed emotion ( $\alpha = .91$ ), as well as a three-item measure of negative-ingroup directed emotion (disgusted, dissatisfied, and annoyed with the United States;  $\alpha = .89$ ).

Participants then reported (1 = extremely unlikely) to 7 = extremely likely) their likelihood of engaging in value-adherence activism to change the behavior of the group to be in line with the value of self-reliance. Six items, adopted from the activism orientation scale (Corning & Myers, 2002), including "Send a letter or email to a public official on the issue of self-reliance," and "Go out of your way to collect information on U.S. funding for social programs," were used  $(\alpha = .84)$ . Participants then again reported their identification with the United States  $(\alpha = .85)$ .

#### Results

As in Experiment 1, multiple regression was used to examine hypotheses and included degree of support for the value as a continuous independent variable and condition, dummy coded (no-violation = 0, violation = 1).

# Antecedents of intragroup dissonance

As noted earlier, there was moderate support for the value of self-reliance (M = 4.95, SD = 1.29, median = 5.00). There was also a high level of identification with the ingroup (M = 5.48, SD = 1.10), and neither support for the value or identification with the ingroup differed by condition, ps > .16.

Psychological discomfort, negative self-directed emotion, and negative ingroup-directed emotion

The regression analysis revealed that participants in the violation condition generally experienced more psychological discomfort (M = 3.72, SD = 1.30) than participants in the no-violation condition (M = 3.00, SD = 1.23),  $\beta = .28$ , t(76) = 3.31, p < .01. In addition, those who more strongly endorsed the value reported greater psychological discomfort,  $\beta = .64$ , t(76) = 5.22, p < .001. Finally, as expected, the condition  $\times$  support for the value interaction,  $\beta = .62$ , t(76) = 8.03, p < .001, was obtained. Simple slope tests (Aiken & West, 1991) revealed that in the violation condition, greater support for the value predicted greater psychological discomfort,  $\beta = .68$ , t(76) = 6.22, p < .001. In the no-violation condition, in which the group's behavior adhered to the value, greater support for the value predicted psychological less discomfort, t(76) = -5.22, p < .001.

The multiple regression analyses conducted separately for negative self-directed emotion and negative ingroup-directed emotion revealed, as expected, no main effects or interactions between condition and level of support for the value, ps > .11.

## Value-adherence activism

The regression analysis revealed a main effect for violation condition,  $\beta = .22$ , t(76) = 2.03, p < .05: participants in the violation condition reported a greater likelihood of in value-adherence activism (M = 2.89,engaging SD = 1.11) than participants in the no-violation condition (M = 2.38, SD = 1.07). The analysis also revealed a main effect for degree of support for the value,  $\beta = .34$ , t(76) = 2.10, p < .05: those who more strongly endorsed the value reported a greater likelihood of engaging in value-adherence activism. The analysis also yielded the predicted two-way interaction,  $\beta = .46$ , t(76) = 2.86, p < .01. Simple slope tests revealed that in the violation condition, greater support for the value predicted increased likelihood of engaging in value-adherence activism,  $\beta = .34$ , t(76) = 2.10, p < .05. However, in the no-violation condition, greater support for the value predicted less likelihood of engaging in value-adherence activism,  $\beta = .-28$ , t(76) = -1.94, p < .06.

# Mediation and mediated-moderation analyses

To examine the hypothesis that psychological discomfort explained the increase in value-adherence activism in the violation condition, we tested the hypothesized mediating role of psychological discomfort on value-adherence activism in two mediation models, with one model including degree of support for the value as a moderating factor (Muller, Judd, & Yzerbyt, 2005).

The requirements for showing mediation were successfully met: (a) violation condition was significantly related to value-adherence activism,  $\beta = .23$ , t(74) = 2.07, p < .05; (b) violation condition also significantly predicted the mediator psychological discomfort,  $\beta = .28$ , t(75) = 2.70,

p < .01; and (c) psychological discomfort was significantly related to value-adherence activism,  $\beta = .37$ , t(73) = 3.20, p < .01, when the effect of ingroup violation condition and the other variables were controlled. In addition, effect of violation condition became nonsignificant,  $\beta = .11$ , t < 2. Finally, the Sobel test was also significant, Z = 2.14, z = 0.03. Thus, the increased psychological discomfort experienced in the violation condition motivated individuals to engage in activism.

We expected that degree of support for the value would moderate the effects of violation condition, such that those who supported the value more would experience greater psychological discomfort, and in turn, report a greater likelihood of engaging in value-adherence activism. To test this prediction, we conducted a mediated moderation, which uses the interaction term (violation condition × degree of support for the value) as the independent variable (Muller et al., 2005). This analysis controlled for the two main effects (violation condition and degree of support for the value), as well as negative self- and ingroup-directed emotion.

The requirements for showing mediated moderation were successfully met: (a) the violation condition × degree of support for the value interaction was significantly related to value-adherence activism,  $\beta = .28$ , t(73) = 2.61, p < .05; (b) violation condition × degree of support also significantly predicted the mediator psychological discomfort,  $\beta = .62$ , t(74) = 7.98, p < .001; and (c) psychological discomfort was significantly related to value-adherence activism,  $\beta = .31$ , t(72) = 2.01, p < .05, when the effects of the violation condition × degree of support interaction and other variables were controlled. In addition, the effect of the violation condition by degree of support for the value became nonsignificant,  $\beta = .09$ , t < 1. Finally, the Sobel test was significant, Z = 2.02, p < .05.

## Change in identification

Given the implementation of value-adherence activism as a dissonance-reduction strategy, we did not expect change in identification by condition. To test for the effects of violation condition and degree of support for the value on change in identification, we conducted a mixed regression model (Cohen, Cohen, West, & Aiken, 2003), with identification with the ingroup as a repeated measures factor. The analysis revealed a main effect for change in identification, F(1, 165) = 11.13, p < .001, such that overall, participants reported less identification with the ingroup after reading the report (M = 4.62, SD = 1.25), compared to prior to reading the report (M = 4.86, SD = 1.60). As expected, however, there were no other main effects or interactions,  $Fs \le 1$ . Thus, having already reported that they would be more likely to engage in value-adherence activism, participants did not disidentify in the violation condition.

#### Discussion

Experiment 2 extends the findings of Experiment 1 and provides additional support for intragroup dissonance.

Experiment 2, using a value reflecting a greater range of endorsement than that used in Experiment 1, demonstrated that those who endorsed the value more reported greater psychological discomfort, and in turn, reported greater likelihood of engaging in value-adherence activism in the violation condition. Given the relation between personal values and the self (Bilsky & Schwartz, 1994), these results provide evidence that intragroup dissonance is linked to the self. In addition, Experiment 2 extends the findings of Experiment 1 by demonstrating that an ingroup violating a personal value does not produce negative ingroup-directed emotion. This finding suggests that it is unlikely that other negative group-based emotions, such as collective guilt (Doosje, Branscombe, Spears, & Manstead, 1998) can account for the present effects. Finally, Experiment 2 found evidence for value-adherence activism as a dissonance-reduction strategy. Indeed, psychological discomfort mediated the effect of violation condition on value-adherence activism, rendering the need to employ disidentification as a strategy useless.

#### **General discussion**

The present work provides a framework for understanding how group members respond to ingroup violation of personal values, but also complements and extends previous work examining group-based dissonance in two ways. First, whereas Norton and colleagues (2003) found that dissonance can be experienced vicariously by observing an ingroup member, the present studies demonstrate that dissonance can be aroused from mere knowledge of the actions of the ingroup. Second, the present research suggests that both disidentification and value-adherence activism may be viable dissonance-reduction strategies for group-based dissonance.

By considering social identity, as well as personal identity, intragroup dissonance also has implications for intragroup dynamics and intergroup processes. For example, when the past actions or perceived intentions of a group violate a person's values, the potential for experiencing intragroup dissonance may make joining a group less attractive. Alternatively, for people already members of a group, intragroup dissonance can produce disidentification, and in turn may lead to the formation of subgroups. Answers to the question of when individuals, despite a great deal of incentive (e.g., profit) or normative pressure (e.g., company mandate), will choose to deviate from group behavior (e.g., become a whistleblower by reporting illegal practices) may also lie in intragroup dissonance. Finally, more broadly, intragroup dissonance speaks to the important potential links between intragroup processes and intergroup relations. For example, as a result of intragroup dissonance that stems from the group acting in a prejudiced manner toward outgroups, group members may disengage from the group, and thereby allow bias to continue in the future. Thus, intragroup dissonance informs both intragroup and intergroup behavior.

Although the results are generally consistent with a dissonance interpretation, additional work can help to more definitely delineate the role of dissonance in this process. First, the present work does not directly show that the strategies employed reduce dissonance-related discomfort. Future research might, therefore, manipulate the placement of the affect measures (e.g., before or after the implementation of a strategy; Elliot & Devine, 1994) to test that dissonance is reduced after performing the action. Second, additional research might further examine the relationship between intragroup dissonance and other behaviors, such as attitude-change, which are commonly used as dissonance-reducing strategies (Olson & Stone, 2005). More direct evidence for a dissonance process would be obtained, for instance, if a study were conducted that manipulated which came first (attitudes or disidentification) and showed that the effect we found only occurs on what comes first. Finally, as the present work examined only one target group and relies on a group membership manipulation to test for the role of group identification, additional research should examine not only the role of strength of group identification (e.g., via manipulation; Doosje et al., 1995), but also the generalizability of the present effects to other groups.

In conclusion, the present research demonstrates that, like Dr. King, individuals experience psychological discomfort, which motivates them to act when a group violates their personal values. Intragroup dissonance provides a framework for understanding how people respond to ingroup violation of personal values.

## References

Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.

Bilsky, W., & Schwartz, S. H. (1994). Values and personality. *European Journal of Personality*, 8, 163–181.

Carson, C. (Ed.). (1998). The autobiography of Martin Luther King, Jr. New York: Warner Books.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Mahwah. NJ: Erlbaum.

Cooper, J., & Mackie, D. (1983). Cognitive dissonance in an intergroup context. *Journal of Personality and Social Psychology*, 44, 536–544.

Cooper, J., & Stone, J. (2000). Cognitive dissonance and the social group. In D. J. Terry & M. A. Hogg (Eds.), *Attitudes, behavior, and social context: The role of norms and group membership* (pp. 227–244). Mahwah, NJ: Lawrence Erlbaum.

Corning, A. F., & Myers, D. J. (2002). Individual orientation toward engagement in social action. *Political Psychology*, 23, 703–729.

Devine, P. G., Tauer, J. M., Barron, K. B., Elliot, A., & Vance, K. M. (1999). Moving beyond attitude-change in the study of dissonance-related processes. In E. Harmon-Jones & J. Mills (Eds.), *Cognitive dissonance: Progress on a pivotal theory in social psychology* (pp. 297–323). Washington, DC: American Psychological Association.

Doosje, B., Branscombe, N. R., Spears, R., & Manstead, S. R. (1998).
Guilty by association: When one's group has a negative history.
Journal of Personality and Social Psychology, 75, 872–886.

Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology*, 31, 410–436.

- Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of Cognitive Dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology, 67*, 382–394.
- Festinger, L. (1957). A theory of cognitive dissonance. Stanford, CA: Stanford University Press.
- Festinger, L., Riecken, H. W., & Schachter, S. (1956). When prophecy fails. Minneapolis: University of Minnesota Press.
- Harmon-Jones, E., & Mills, J. (Eds.). (1999). Cognitive dissonance: Progress on a pivotal theory in social psychology. Washington, DC: American Psychological Association.
- Heider, F. (1958). The psychology of interpersonal relations. New York: Wiley.
- Kelley, H. H., & Woodruff, C. L. (1956). Members' reactions to apparent group approval of a counternorm communication. The Journal of Abnormal and Social Psychology, 52, 67–74.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology (4th ed.. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.). *The* handbook of social psychology (Vol. 1, pp. 233–265). Boston, MA: McGraw-Hill.
- Matz, D. C., & Wood, W. (2005). Cognitive dissonance in groups: The consequences of disagreement. *Journal of Personality and Social Psychology*, 88, 22–37.
- McKimmie, B. M., Terry, D. J., Hogg, M. A., Manstead, A. S., Spears, R., & Doosje, B. (2003). I'm a hypocrite, but so is everyone else: Group

- support and the reduction of cognitive Dissonance. *Group Dynamics: Theory, Research, and Practice, 7, 214–224.*
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89, 852–863.
- Norton, M. I., Monin, B., Cooper, J., & Hogg, M. A. (2003). Vicarious dissonance: Attitude change from the inconsistency of others. *Journal* of Personality and Social Psychology, 85, 47–62.
- Olson, J. M., & Stone, J. (2005). The influence of behavior on attitudes. In D. Albarracin, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 223–271). Mahwah, NJ: Erlbaum.
- Sidanius, J., van Laar, C., Levin, S., & Sinclair, S. (2003). Social hierarchy maintenance and assortment into social roles: A Social Dominance Perspective. Group Processes & Intergroup Relations, 6, 333–352.
- Stone, J., & Cooper, J. (2001). A self-standards model of cognitive dissonance. *Journal of Experimental Social Psychology*, 37, 228–243.
- Stone, J., Wiegand, A. W., Cooper, J., & Aronson, E. (1997). When exemplification fails: Hypocrisy and the motive for self-integrity. *Journal of Personality and Social Psychology*, 72, 54–65.
- Tajfel, H. (Ed.). (1978). Differentiation between social groups. London: Academic Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks-Cole.