

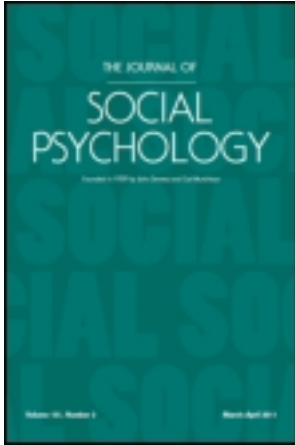
This article was downloaded by: [Universita di Trento]

On: 17 March 2012, At: 03:53

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954

Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## The Journal of Social Psychology

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/vsoc20>

### Ingroup Ambivalence and Experienced Discomfort: The Moderating Roles of Affective Versus Cognitive Attitudinal Basis, Group Identification, as Mediated by Negative Beliefs About the Ingroup

Sandro Costarelli <sup>a</sup> & Rasyid Bo Sanitioso <sup>b</sup>

<sup>a</sup> University of Trento

<sup>b</sup> Université Paris V

Available online: 15 Nov 2011

To cite this article: Sandro Costarelli & Rasyid Bo Sanitioso (2012): Ingroup Ambivalence and Experienced Discomfort: The Moderating Roles of Affective Versus Cognitive Attitudinal Basis, Group Identification, as Mediated by Negative Beliefs About the Ingroup, *The Journal of Social Psychology*, 152:2, 158-173

To link to this article: <http://dx.doi.org/10.1080/00224545.2011.580795>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan,

sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

# Ingroup Ambivalence and Experienced Discomfort: The Moderating Roles of Affective Versus Cognitive Attitudinal Basis, Group Identification, as Mediated by Negative Beliefs About the Ingroup

SANDRO COSTARELLI  
*University of Trento*

RASYID BO SANITOSO  
*Université Paris V*

---

---

**ABSTRACT.** Prior research has found individuals' reactions to vary depending on whether such associations are activated by emotions (an affective basis) or by beliefs (a cognitive basis) about the object's properties. Accordingly, this conceptual distinction should be relevant also for the discomfortive responses to one's ambivalent attitudes regarding fellow group members (or the ingroup). Findings from two studies support the argument that ambivalence-associated discomfort a) is a general tendency when it regards affect-based ambivalence towards fellow group members, while b) only holds for the more identified group members when ambivalence concerns beliefs about the ingroup, and for this latter group members c) this tendency is driven by the strength of their negative beliefs about the ingroup or fellow group members.

**Keywords:** attitudes, emotions, social identity

---

---

PEOPLE ARE MOTIVATED TO HOLD attitudes that are internally consistent (Brehm & Cohen, 1962; Heider, 1958). In other words, individuals tend to positively evaluate attitude objects associated with only positive attributes and, conversely, to negatively evaluate those associated with only negative attributes. However, people may also be *ambivalent* (Scott, 1966, 1969). This is the case when they hold simultaneously positive and negative attitudes towards a given

---

*Address correspondence to Sandro Costarelli, University of Trento, Department of Cognitive Sciences and Education, Corso Bettini, 31, 38068 Rovereto (TN), Italy; sandro.costarelli@unitn.it (e-mail).*

attitude object (for reviews, see Jonas, Broemer, & Diehl, 2000; Thompson, Zanna, & Griffin, 1995). Unsurprisingly, consistent with prior theoretical work (e.g., McGregor, Newby-Clark, & Zanna, 1999), holding this countermotivational type of attitude (ambivalence) has been found to elicit subsequent discomfort (e.g., Elliot & Devine, 1994; Harmon-Jones, 2000).

The present research examines this phenomenon by focusing on one's ambivalent attitude towards the ingroup and the subsequent discomfortive responses that can be anticipated from the above-reviewed research. Considering this specific issue may add to the extant research literature in two ways. First, it would contribute to better understand the affective implications of holding critical ingroup-directed attitudes ("ingroup criticism"). Prior research has found expressing not only positive but also negative views about fellow group members to be a way for group members to help the ingroup to overcome its shortcomings and defaults *vis-à-vis* relevant outgroups in the intergroup context (e.g., Hornsey, 2005). On the one hand, on the basis of the above-reviewed theoretical and empirical work in the attitude domain, questioning fellow group members by expressing not only ones' positive but also one's negative views of the ingroup can be expected to entail some negative affective consequences as a peculiar instance of holding ambivalent attitudes. On the other hand, only limited evidence is available as yet on the factors that may play a role in moderating and mediating the potential affective consequences of this phenomenon when the attitude object is one's fellow group members.

Further, paralleling the conceptual distinction between "actual" and "ideal" self (Higgins, 1987), group members can focus on attributes of their group "as it is" or on attributes of their group as they "ideally would like it to be." The past research demonstrates that focusing on ideal self-guides may foster awareness of shortcomings of the individual's current self and this may lead to personal distress (e.g., Higgins, 1987). Of relevance to the current work, Bizman, Yinon, and Krotman (2001) have demonstrated the negative affective consequences of group members' perceptions of a discrepancy between the actual and ideal characteristics of fellow group members. However, these researchers measured other-based ("fear-of-negative-evaluation") rather than self-based negative affect (e.g., discomfort). Thus, in the current work, considering the latter rather than the former negative response may add to the findings of prior empirical work by focusing on a different type of affective response.

### *Ingroup Ambivalence and Discomfort: A Possible Role for Attitude Basis?*

In general, bringing to mind a given attitude object sets off evaluative associations with valenced information differing in its affective or cognitive basis (Zanna & Rempel, 1988). Of importance for the current work, prior research has found individuals' reactions to vary depending on whether such associations are activated by emotions (an affective basis) or by beliefs (a cognitive

basis) about the object's properties (for reviews, see Haddock & Zanna, 1999). Accordingly, this conceptual distinction should be relevant also for the discomfortive responses to one's ambivalent attitudes regarding fellow group members (the ingroup).

On the one hand, *affect-based ingroup ambivalence* is an internal inconsistency regarding attitudes based on group-related feelings and emotions (McGregor et al., 1999). Accordingly, on the bases of prior work finding the ambivalence-discomfort association (e.g., Elliot & Devine, 1994; Harmon-Jones, 2000), group members should be psychologically distressed to the extent that their attitudes based on emotions towards fellow group members are simultaneously not only positive but also negative (i.e., ambivalent). This should be the case because, in general, uncertainty arising from inconsistent affect towards attitude objects may impede decision-making about approach-avoidance behavior, whereby disrupting one's ability to act effectively (Newby-Clark, McGregor, & Zanna, 2002). Conceivably, when ambivalence-based uncertainty regards approach-avoidance behavior targeting fellow group members, discomfortive responses can be expected irrespective of any individual differences. This should be the case because feelings and emotions are relatively uncontrollable and particularly ego-involving. In turn, this renders a discomfortive response an inescapable consequence of one's affect-based ingroup ambivalence irrespective of any individual differences such as ingroup identification. Accordingly, replicating the results of prior research in the attitude domain, to the extent that the participants in the current study are ambivalent in their emotion-based attitude about the ingroup (affect-based ambivalence), they should experience subsequent discomfort (*Hypothesis 1*).

On the other hand, group members may not be equally sensitive to holding ingroup ambivalence in cognitive constructs such as beliefs. This reasoning is consistent with empirical work on *cognitive* dissonance, a construct that researchers have generally equated to ambivalence with regard to the elicitation of subsequent discomfort (e.g., Elliot & Devine, 1994; Harmon-Jones, 2000). Assuming that group identification correlates positively with perceptions of importance of the ingroup (Wann & Branscombe, 1993), a study by Devine, Tauer, Barron, Elliot, and Vance (1999) on the cognitive dissonance-discomfort association as a function of perceived importance of the attitude object in a counterattitudinal advocacy dissonance paradigm is relevant in this respect. Specifically, under conditions of relatively high dissonance, these researchers found participants who perceived the attitude object as being relatively more important to experience greater discomfort than those who rated the attitude object as being relatively less important to them. Assuming that group identification correlates positively with perceptions of importance of the ingroup (Wann & Branscombe, 1993), this suggests that psychological discomfort as a consequences of one's *cognition-based ingroup ambivalence* should be more pronounced only to the extent that ingroup identification is greater (*Hypothesis 2*).

Of importance for the scopes of the current research, existing evidence also shows that the formation of ambivalent attitudes, in general, is more strongly influenced by *negative* than by positive information about the attitude object. This may be explained by the fact that, being more diagnostic, negative information evokes stronger affective responses than positive information. Extending these studies to the domain of ingroup ambivalence, thus, we could expect negative beliefs about one's own group embodied in ingroup ambivalence to underpin subsequent affective responses among its members. Specifically, these expected affective reactions to ambivalence are likely to be extremely negative when it concerns one's ingroup, as it is in direct contrast with the motivation to hold an unambivalently positive attitude towards the ingroup. Consequently, ambivalence towards the ingroup should engender heightened discomfortive reactions, especially among members who identify strongly with the group and therefore are more motivated to hold an unambivalent attitude (cf. Priester & Petty, 1996, 2001).

Accordingly, another aim of the current research is to examine the question of whether the explanation positing a key-role of negative beliefs about the ingroup may account for the predicted influence of cognition-based ingroup ambivalence on subsequent discomfortive reactions, as moderated by ingroup identification. According to models of ambivalence (e.g., Priester & Petty, 1996; Thompson et al., 1995), increases in univalent *negative* attitudes only result in increased ambivalence when those univalent negative attitudes are weaker than the individual's univalent positive evaluation of the attitude object. Since people generally like the fellow group members more than they dislike them, we predicted that the expected positive association between negative affect and cognition-based ingroup ambivalence is mediated by (participants') negative rather than positive beliefs about the ingroup or fellow group members (*Hypothesis 3*).

## STUDY 1

### Method

#### *Participants and Design*

Eighty-six first-year psychology students at the University of Trento, Italy (41 women and 45 men; age:  $M = 19.11$ ) volunteered to take part in the study at the end of an introductory psychology lecture.

#### *Procedure and Measures*

The experimenter presented participants with a booklet containing an introduction page and a questionnaire. Participants first read the introduction page presenting the study as part of a larger research project allegedly investigating European students' attitudes towards various social objects. Next, participants

individually completed the questionnaire. Psychology students were the target ingroup for all participants. To render ingroup membership salient, participants were asked to write down, in the first page of the questionnaire, their major followed by their responses to three items (*I feel like a member of the category of psychology students / I am proud to be a psychology student / I often think of myself as a psychology student*). The items were adapted for the current target ingroup from a measure of group identification originally developed by Cadinu and Reggiori (2002) to assess identification with professional groups. Participants responded to each question using a scale ranging from 1 = *not at all* to 7 = *very much*. The scale proved to be reliable (Cronbach's  $\alpha = .74$ ;  $M = 4.15$ ,  $SD = 0.88$ ).

On the following page, participants were presented with measures of experienced cognition- and affect-based ingroup ambivalence. They responded to two blocks of questions whose order was randomly counterbalanced across participants. Each block contained either the cognition- or the affect-based measures of experienced ambivalence developed by Priester and Petty (1996). One block consisted of three items measuring cognition-based experienced ambivalence towards the ingroup (*Thinking about psychology students, to what extent are your opinions / ideas / beliefs about them conflicted?*). The other block consisted of three items measuring affectively-based ambivalence towards the ingroup (e.g., *Thinking about psychology students, to what extent are your feelings / emotions / sensations about them conflicted?*). Participants responded using a 7 point rating scale ranging from 1 = *not at all* to 7 = *very much*. As noted by Priester and Petty (1996), these two measures are particularly appropriate to assess cognition- and affect-based experience of ambivalence because of their correspondence to the commonly accepted tripartite model of attitudes (Ostrom, 1969). A Principal-components analysis was then conducted to check whether the six items on which participants rated their ambivalence towards the ingroup could be clustered into two categories (i.e., cognition- and affect-based items). The analysis revealed a two-factorial solution (total percentage variance explained = 85%, after retaining only factors with eigenvalues greater than 1). Each item loaded on only one factor in the factor solution, using a loading criterion of .50 or higher. Accordingly, indices of cognition- and affect-based ambivalence were computed by averaging participants' ratings for the items that loaded on each factor (cognition-based ingroup ambivalence:  $\alpha = .82$ ,  $M = 3.2$ ,  $SD = 0.92$ ; affect-based ingroup ambivalence:  $\alpha = .87$ ;  $M = 2.16$ ,  $SD = 0.90$ ).

Finally, on the following page of the questionnaire, participants were administered the discomfort measure developed by Elliot & Devine (1994) to assess attitudinal inconsistency-related discomfort (*uneasy; bothered; uncomfortable*) that constituted the dependent measure. Specifically, participants were asked to indicate the extent to which each of the emotional adjectives corresponded to how they were feeling at that time. Participants' responses were subsequently combined to provide a single index of discomfort (where higher scores reflected a more discomfortive response). This choice was validated by the results of a

Principal-components analysis on the items specifying that the factors with eigenvalues greater than 1 be retained. A one-factor solution was extracted accounting for 75% of the variance. All factor loadings exceeded .76. Furthermore, this measure showed a high internal consistency ( $\alpha = .83$ ).

## Results and Discussion

There were no gender or scale order counterbalancing effects, and these will not be discussed further. Preliminary correlation analysis ascertained that the two ambivalence indices were moderately related ( $r = .44, p < .05$ ), but none of them correlated with ingroup identification ( $r$ s between .14 and .21, *ns*).

### *Moderation Analyses*

Hierarchical regression analyses were used in which discomfort was the criterion and the scores of ingroup identification, cognition- and affect-based group ambivalence (Step 1), and the resulting two-way interaction terms (Step 2) were entered as the predictors (preliminary analyses ascertained that the three-way interaction was not reliable and was consequently dropped from the model). As suggested by Aiken and West (1991), mean-centered predictor scores were employed.

The final equation was statistically significant,  $F(1, 85) = 5.63, p < .05$ , with the predictors introduced in the regression model accounting for a significant proportion of the variance in discomfort,  $R^2 = .23$ . Concerning main effects, one for ingroup identification was obtained,  $t = 2.18, p < .05$ , indicating that ingroup identification negatively predicted discomfort,  $B = -0.31$ . Additionally, in line with predictions (*H1*), affect-based ingroup ambivalence was a positive predictor of discomfort,  $B = .35, t = 2.38, p < .05$ . Concerning two-ways interactions, in line with predictions, the Affect-based ingroup ambivalence  $\times$  Ingroup identification interaction was not reliable,  $t < 1$ . In contrast, as also expected, the Cognition-based ingroup ambivalence  $\times$  Ingroup identification interaction was statistically significant,  $B = .30, t = 2.24, F_{change}(1, 85) = 4.15, p < .05$ . To decompose this interaction, simple slopes analyses were conducted at 1 *SD* above and below the mean of identification, as suggested by Aiken and West (1991). As predicted (*H2*), the relation between cognition-based group ambivalence and discomfort was positive and significant for high identifiers,  $B = .69, t = 2.26, p < .05$ , but not for low identifiers,  $B = .04, t = 0.93, p = .44$ .

Consistent with predictions, these results provided initial support for the roles played by some yet unexplored moderators of discomfortive responses to ingroup ambivalence, namely, the affective vs. cognitive basis of ambivalence towards the ingroup and ingroup identification.



However, three issues remained. First, given the correlational nature of the design, it is not possible to make any inferences concerning the causal relationship between ingroup ambivalence and experienced discomfort. Besides, no indications emerge from these findings as regards the factor(s) underlying the observed effects. Finally, the nature of the relationship observed may be specific to university students and their academic groups, and may thus not be generalizable to other kinds of social groups.

## STUDY 2

The current study aimed to address the issues that emerged from the findings of the preceding one. Specifically, first, rather than measuring cognition- and affect-based ambivalence as in the Study 1, an experimental manipulation was used to increase the salience vs. to not increase the salience of self-reporting cognition- and affect-based experienced ambivalence towards fellow group members. Conceivably, experiencing ambivalence depends on whether one's own within-evaluation conflict is sufficiently salient (Priester & Petty, 1996, 2001). Accordingly, more conclusive support for the proposed arguments would be obtained if, under conditions of increased but not of not increased salience of self-reporting ingroup ambivalence, affect-based ingroup ambivalence is a positive predictor of discomfort (*H1*), and cognitively-based ingroup ambivalence is a positive predictor of discomfort for high but not low identifiers (*H2*). More important, if this is the case, negative beliefs concerning the ingroup should mediate this latter moderated effect (*H3*).

Finally, Study 2 used national group as an attitude object rather than academic group as in the preceding one.

## Method

### *Participants and Design*

One hundred sixty-six high-school students from Trento, Italy (86 women and 80 men; age:  $M = 18.36$ ) volunteered to take part in the study. They were randomly assigned to two conditions (see below). Participant gender was similarly distributed across conditions. There were no significant effects for gender, so this will not be discussed further. In this study, the ingroup was defined as people from the same country as the participants (i.e., Italians).

### *Procedure and Measures*

Before the start of a regular lecture, an experimenter invited students to participate in the study. Participants were provided a booklet containing an

introduction sheet and a questionnaire that closely paralleled those used in Study 1 as adapted for the current ingroup target (i.e., Italians). The important modification from the procedure used in Study 1 concerned the manipulation introduced after assessing participants' ingroup identification by means of the same items employed in Study 1. To this end, all participants were asked to evaluate fellow group members. For half the participants (ambivalence self-reporting salient condition), an explicit instruction of focusing on "both positive AND negative characteristics of, and feelings towards," fellow group members was included after the measurement of ingroup identification. For the other half (ambivalence self-reporting not salient condition), after the measurement of ingroup identification, they were merely asked to complete the task (without the explicit instruction to focus on both positive and negative characteristics of, and feelings towards, the ingroup). Conceivably, experiencing ambivalence depends on whether one's own within-evaluation conflict is sufficiently salient (Priester & Petty, 1996, 2001). Accordingly, support for the proposed arguments would be obtained if, under conditions of increased but not of not increased salience of self-reporting ingroup ambivalence, affect-based ingroup ambivalence is a positive predictor of discomfort (*H1*), and cognitively-based ingroup ambivalence is a positive predictor of discomfort for high but not low identifiers (*H2*).

Next, participants answered the same questions that were used in Study 1. They responded to two blocks of questions tapping their cognitively- and affectively-based experienced ambivalence toward the ingroup. A Principal-components analysis revealed, as in Study 1, a two-factor solution encompassing cognitively- and affectively-based items (total percentage variance explained = 78%, after retaining only factors with eigenvalues greater than 1). Accordingly, separate cognition- and affect-based ambivalence indices were computed for each participant by averaging ratings for the items that loaded on each factor (cognitively-based ingroup ambivalence:  $\alpha = .84$ ; affectively-based ingroup ambivalence:  $\alpha = .81$ ).

Then, participants were administered the same discomfort scale used in Study 1. Participants' responses were subsequently combined to provide a single index of discomfort (where higher scores reflected a more discomfortive response). This choice was validated by the results of a Principal-components analysis on the items specifying that the factors with eigenvalues greater than 1 be retained. A one-factor solution was extracted accounting for 61% of the variance. All factor loadings exceeded .71. Furthermore, this measure showed a high internal consistency ( $\alpha = .80$ ).

Finally, participants' perceptions concerning the influence of positive as opposed to negative characteristics in their evaluation of the ingroup were assessed. The questions included: "The reasons behind my evaluation of psychology students as a whole have much more to do with their *merits / positive characteristics / qualifications* than with their *limits / negative characteristics / faults*" and its opposite emphasizing the negative aspect: "The reasons behind my evaluation of psychology students as a whole have much more to do with

their *limits / negative characteristics / faults* than with their *merits / positive characteristics / qualifications*." Participants responded using a scale ranging from  $-3$  to  $+3$ . Participants' respective answers were subsequently combined to provide an index of negativity concerning the ingroup ( $\alpha = .74$ ).

## Results and Discussion

Preliminary correlation analysis ascertained that the two ambivalence indices were moderately related ( $r$ s between  $.44$  and  $.47$ ,  $p$ s  $< .05$ ), but none of them correlated with ingroup identification ( $r$ s between  $.14$  and  $.21$ ,  $ns$ ). Finally, ingroup identification did not vary across conditions,  $t(166) = 0.73$ ,  $ns$ .

### *Manipulation Checks*

An analysis of variance confirmed that the manipulation had the desired effect: across the two measures of cognition- and affect-based experienced ambivalence towards the ingroup, participants in the (ambivalence salient) condition were more ambivalent toward the ingroup ( $M$ s =  $4.90$  and  $4.10$ ,  $SD$ s =  $1.38$  and  $1.45$ , respectively) than participants in the (ambivalence not-salient) control condition ( $M$ s =  $4.00$  and  $3.14$ ,  $SD$ s =  $1.83$  and  $1.86$ , respectively),  $F$ s( $1, 165$ )  $> 4.11$ ,  $p$ s  $< .05$ . Subsequent addition of ingroup identification as a covariate in the ANOVA model established that ingroup identification did not significantly account for variance in scores of cognition- and affect-based experienced ambivalence towards the ingroup (parameter estimates:  $t$ s for main and interaction effects  $< 1.19$ ,  $p$ s  $> .25$ ).

### *Moderation Analyses*

A regression analysis was conducted testing a dummy-coded measure of Ingroup ambivalence manipulation (ambivalence self-reporting: salient =  $1$  vs. not salient =  $0$ )  $\times$  Continuous measure of ingroup identification  $\times$  Continuous measure of cognitive ingroup ambivalence  $\times$  Continuous measure of affective ingroup ambivalence model with discomfort as the criterion. All continuous predictors were mean-centered (cf. Aiken & West, 1991). Main effects, two-way, and three-way interactions were entered simultaneously in the model.

No main effects were statistically significant,  $t$ s  $< 1.65$ ,  $p$ s  $> .15$ . However, as predicted, the analysis revealed a significant Ambivalence salience manipulation  $\times$  Affective group ambivalence interaction,  $B = .49$ ,  $t = 2.47$ ,  $F(1, 165) = 4.79$ ,  $p < .05$ . As also expected, the Ambivalence salience manipulation  $\times$  Affective group ambivalence  $\times$  Ingroup identification interaction was not reliable,  $B = .34$ ,  $t = 1.53$ ,  $F(1, 165) = 2.35$ ,  $p = 0.13$ , consistent with the findings of Study 1. In sum, in line with the findings of the preceding study and as predicted ( $H1$ ), the participants who were more aware of being affectively ambivalent toward

the ingroup reported greater discomfort than those who were less aware of being affectively ambivalent towards their ingroup. Additionally, the analysis revealed a significant Ambivalence salience manipulation  $\times$  Cognitive group ambivalence interaction ( $B = 0.49$ ,  $t = 2.47$ ,  $F(1, 165) = 4.79$ ,  $p < .05$ ), and the expected Ambivalence salience manipulation  $\times$  Cognitive group ambivalence  $\times$  Ingroup identification interaction,  $B = -0.55$ ,  $t = -2.11$ ,  $F(1, 165) = 4.45$ ,  $p < .05$ . This latter interaction (the effect of interest) establishes that participants' discomfort was differentially elicited across conditions of salience of self-reporting ingroup ambivalence, and at different levels of both cognition-based ambivalence and ingroup identification. To decompose the nature of this interaction, simple-slopes analyses conducted at 1 SD above and below the mean of ingroup identification (see Aiken and West, 1989) allowed to compare the slopes of the Ambivalence salience manipulation  $\times$  Cognition-based ambivalence interaction for participants who identified more strongly (or high[er] identifiers) and for participants who identified more weakly with the group (or low[er] identifiers).

In line with predictions, the Ambivalence salience manipulation  $\times$  Cognitively-based ambivalence interaction was reliable for high identifiers,  $B = .55$ ,  $t = 2.32$ ,  $p < .05$ , but not for low identifiers,  $B = .36$ ,  $t = 0.80$ ,  $p = .43$ . Accordingly, focusing on high identifiers, the simple-effects of the ambivalence salience manipulation on subsequent discomfort were inspected at higher levels (one *SD* above the mean) and at lower levels (one *SD* below the mean) of cognition-based ingroup ambivalence. The findings revealed greater discomfort among high identifiers in the salient group ambivalence self-reporting compared to those in the non-salient group ambivalence self-reporting condition ( $M_s = 4.52$  and  $2.64$ ,  $SD_s = 0.79$  and  $0.84$ , respectively) at higher levels,  $F(1, 185) = 4.94$ ,  $p < .05$ , but not at lower levels ( $M_s = 1.07$  and  $0.79$ ,  $SD_s = 0.89$  and  $0.85$ , respectively),  $F(1, 165) = 1.82$ ,  $p = 0.88$ , of cognition-based group ambivalence. Replicating the findings of Study 1 and as predicted (*H2*), among high identifiers in the non-salient group ambivalence self-reporting condition, at higher levels of cognition-based group ambivalence the experienced discomfort was greater than at lower levels ( $2.64$  vs.  $0.79$ ) of cognition-based group ambivalence,  $F(1, 185) = 4.12$ ,  $p < .05$ . In sum, as in Study 1, among participants with stronger but not weaker group identification, those who were aware of being more cognitively ambivalent toward the ingroup reported greater discomfort than those who were aware of being less cognitively ambivalent toward the ingroup. We focused subsequently on participants who are both high identifiers and displayed a higher degree of cognitive ambivalence towards the ingroup.

### *Mediation Analyses*

For this group of participants, following the procedure proposed by Baron and Kenny, path analyses were conducted with Ambivalence Manipulation  $\times$  Cognition-based Ingroup Ambivalence interaction as the predictor and

participants' perceptions that their affective state was influenced by negative beliefs about the ingroup as a mediator (*H3*), as detailed below (cf. Aiken & West, 1991).

When the effect of negative beliefs was statistically controlled for by entering it into the model, the path from negative beliefs to negative affect was significant,  $F(1, 20) = 4.47, p < .05$ , such that negative affect increased to the extent that participants rated their affect as having been influenced more by the negative characteristics of fellow ingroup members than by their positive characteristics,  $B = .51, t = 2.11, p < .05$ . On the other hand, the direct path from the Ambivalence Manipulation  $\times$  Cognitively-based Ambivalence interaction to negative affect reported earlier ( $B = .55, t = 2.32, p < .05$ ) was no longer reliable,  $B = .22, t = 0.66, p = 0.51$ . This finding suggests that, for high identifiers, the influence of cognition-based group ambivalence on negative affect was indeed driven by the extent to which these participants rated their affective state as having being affected by the negative rather than positive beliefs about their group or fellow ingroup members. Further analyses indicated that reverse mediation did not occur.

Finally, a subsequent regression analysis ascertained that the Ambivalence Manipulation  $\times$  Cognition-based Ambivalence interaction impacted on perceptions ( $t = 2.24, p < .05$ ), such that participants rated their affect as having been influenced to a greater degree by negative than by positive beliefs about fellow ingroup members at higher levels of cognition-based group ambivalence and (manipulated) ambivalence. The direction of the regression coefficient for the interaction term indicated that, as ingroup ambivalence was made salient, the strength of the cognitive group ambivalence-negative affect relation became stronger,  $B = .67$ . These findings satisfy Baron and Kenny's second criterion, namely that the mediated predictor (i.e., the Ambivalence Manipulation  $\times$  Cognitively-based Ambivalence interaction term) was associated with the mediator (i.e., negative beliefs).

These results provide convergent support for the findings of Study 1 using an experimental design (rather than a correlational one as in the first study), highlighting the mediating variable involved in the observed processes, and nationals as a target ingroup (rather than academic major as in Study 1).

## General Discussion

The present research explored the issue of the discomfortive responses to one's ingroup ambivalence, aiming to identify potential moderating factors involved in this process. On the one hand, recent attitude research conceptualizing ambivalence as a particular form of cognitive dissonance regarding evaluations (e.g., McGregor et al., 1999) has found its positive association with psychological discomfort (e.g., Elliot & Devine, 1994; Harmon-Jones, 2000).

Accordingly, the present research expected to replicate the findings of this prior work. On the other hand, based on previous research on attitude structure (for reviews, see Haddock & Zanna, 1999) and attitude importance (e.g., Devine et al., 1999), the ambivalence-discomfort association was expected to be moderated by the informational basis of ambivalence components and ingroup identification, respectively.

Specifically, as predicted, the presented studies aimed to test the idea that ambivalence-associated discomfort a) is a general tendency when it regards affect-based ambivalence towards fellow group members, while b) only holds for the more identified group members when ambivalence concerns beliefs about the ingroup. These predictions were supported in the first, correlational study. The second study also found support for the hypotheses, while extending further the empirical examination via an experimental manipulation of the salience of self-reported ingroup ambivalence. Additionally, convergent validity was obtained via the use of a different target ingroup to ensure generalizability of the findings. More important, evidence was also obtained for the claim that the proposed moderated relationship is mediated by perceptions of negative beliefs (rather than positive) concerning the ingroup.

Thus, the present research provides direct evidence that the informational basis of ingroup ambivalence and ingroup identification moderate the ambivalence-discomfort association. Prior to this, no evidence was available on the discomfortive responses to ambivalence regarding this particular attitude object (the ingroup) and the moderators (basis of ambivalence components and ingroup identification) that play a role in this phenomenon. These findings are consistent with and also extend upon recent research conducted by Bizman et al. (2001). These authors demonstrated the negative affective consequences of group members' perceptions of a discrepancy between the actual and ideal characteristics of fellow group members. Unfortunately, however, these researchers measured other-based ("fear-of-negative-evaluation") but not self-based negative affect (e.g., discomfort). Thus, in the current work, considering the latter rather than the former negative response adds to the findings of this prior work by focusing on a different type of affective response.

Additionally, the present findings contribute to the extant literature by specifying the mechanisms by which the observed identification-moderated influence of cognitive ingroup ambivalence occurs. In this regard, results from Study 2 suggest that a cognitive mediator, namely beliefs about the ingroup, is responsible for the negative affective consequences of ambivalence towards one's own group. This was obtained when using fellow group members or the ingroup as a whole rather than single individuals as an attitude object of participants' ambivalence, and among participants who identified highly with the ingroup. The presented evidence adds to the literature by shedding light on the consequences of one's ambivalence toward the beloved one at a group-level rather than, as studied in the past, the individual-level.

Specifically, the present research makes several important contributions. Concerning cognition-based ingroup ambivalence, first, it suggests that when the negative affect experienced is self-based (such as discomfort was in the current research) rather than other-based (such as “fear-of-negative-evaluation” was in Bizman et al. [2001]), higher but not lower identifiers may suffer from their acknowledgement of a discrepancy between actual and “ideal” ingroup characteristics. Specifically, the current findings show that expressing one’s attitude towards the ingroup that is based on beliefs concerning the group “as it is” (i.e., acknowledging the presence of both positive and negative ingroup attributes, or ingroup ambivalence) rather than as one “ideally would like it to be” (i.e., with only positive attributes) evokes negative affect in the more but not the less identified group members.

Importantly, the past theoretical and empirical work in intergroup research clarifies why ingroup identification moderates the relationship between discomfort and cognition-based ambivalence but not between discomfort and affect-based ambivalence towards the ingroup. To begin with, prior work demonstrated ambivalence to increase as a function of the weaker valenced component (e.g., Priester & Petty, 1996, 2001; Thompson et al., 1995). As a result, the default relatively weaker negative evaluation of the ingroup allows one to expect that ingroup ambivalence correlates positively with univalent negativity towards the ingroup. In other words, ingroup ambivalence and ingroup negativity should go hand in hand. However, those group members that are more identified with the group, are also more motivated to maintain their group’s positive image (Brewer & Kramer, 1985). As a consequence, since individuals strive for an unambivalently positive self-image, consistent with social identity theory (Tajfel & Turner, 1979, 1986), higher ingroup identifiers can be expected to be relatively more motivated to maintain a (unambivalently) positive cognitive representation of their group, compared to less identified group members. This should be the case because, in line with Self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), prior work shows that their relatively higher degree of self-stereotyping (Turner et al., 1987) renders higher ingroup identifiers relatively more sensitive to the value threats to their social identity represented by holding an ambivalent cognitive representation of their group, compared with less identified group members (e.g., Branscombe & Wann, 1994; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993).

Importantly, the present findings demonstrate that, irrespective of the level of one’s ingroup identification, people are psychologically distressed to the extent that their attitudes based on emotions towards fellow group members are simultaneously not only positive but also negative (i.e., ambivalent). Of relevance, in general, prior work shows that uncertainty arising from inconsistent emotions and feelings towards attitude objects impedes decision-making about approach-avoidance behavior, whereby disrupting one’s ability to act effectively (e.g., Newby-Clark et al., 2002). Clearly, to leave the group (avoidance behavior) in

order to escape the discomfort following the ambivalent emotions evoked by the contact with fellow group members (approach behavior) is no viable strategy for group members. As a consequence, when uncertainty regards approach-avoidance behavior targeting fellow group members, the following disruption of one's ability to act effectively renders a discomfortive response an inescapable consequence of one's affect-based ingroup ambivalence irrespective of any individual differences such as ingroup identification.

A further contribution of the present research is to better understand the affective implications of holding critical ingroup-directed attitudes ("ingroup criticism"). Prior research has found expressing not only positive but also negative views about fellow group members to be a way for group members to help the ingroup to overcome its shortcomings and defaults *vis-à-vis* relevant outgroups in the intergroup context (e.g., Hornsey, 2005). On the one hand, on the basis of the above-reviewed theoretical and empirical work in the attitude domain, the findings of the present research suggest that questioning fellow group members by expressing not only ones' positive but also one's negative views of the ingroup can be expected to entail some negative affective consequences as a peculiar instance of holding cognition-based ambivalent attitudes towards one' group. Although the expression of ingroup ambivalence may well be perceived as one's own contribution to overcome ingroup shortcomings and defaults, the current findings suggest that expression of ingroup ambivalence may also entail negative implications for the affective state of the more identified group members who express such a countermotivational attitude (as clarified earlier).

Although the current results were consistent with predictions, the present research does have (at least) one limitation. Ingroup identification was measured at the onset of the two studies to increase salience of participants' group membership. However, a measure of participants' level of self-categorization at the social (group) level was absent. Although the observed effects are not easy to explain without this assumption, future research in this area could profit from the inclusion in the research design of a manipulation of self-categorization (at the individual vs. social level, and for which one could predict to replicate the current pattern of findings only for participants in the latter but not the former design cell).

In conclusion, the results of the present research point to the importance of taking both group members' ingroup identification and the affectively- vs. cognitively-based components of their ambivalence towards fellow group members into account when considering the ingroup ambivalence-discomfort association because they may moderate this relationship.

#### AUTHOR NOTES

**Sandro Costarelli** is affiliated with the Department of Cognitive Sciences and Education, University of Trento. **Rasyid Bo Sanitioso** is affiliated with the Université Paris V.



## REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Bizman, A., Yinon, Y., & Krotman, S. (2001). Group-based emotional distress: An extension of self-discrepancy theory. *Personality and Social Psychology Bulletin*, *27*, 1291–1300.
- Branscombe, N. R., & Wann, D. L. (1994). Collective self-esteem consequences of out-group derogation when a valued social identity is on trial. *European Journal of Social Psychology*, *24*, 641–657.
- Brehm, J. W., & Cohen, A. R. (1962). *Explorations in cognitive dissonance*. New York, NY: Wiley.
- Brewer, M. B., & Kramer, R. M. (1985). Choice behavior in social dilemmas: Effects of social identity, group size, and decision framing. *Journal of Personality and Social Psychology*, *50*, 543–549.
- Cadinu, M., & Reggiori, C. (2002). Discrimination of a low-status outgroup: The role of ingroup threat. *European Journal of Social Psychology*, *32*, 501–515.
- Devine, P. G., Tauer, J. M., Barron, K. E., Elliot, A. J., & 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.
- Elliot, A. J., & Devine, P. (1994). On the motivational nature of cognitive dissonance: Dissonance as a psychological discomfort. *Journal of Personality and Social Psychology*, *67*, 382–394.
- Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, *4*, 1–26.
- Haddock, G., & Zanna, M. P. (1999). Cognition, affect, and the prediction of social attitudes. *European Review of Social Psychology*, *10*, 75–99.
- Harmon-Jones, E. (2000). Cognitive dissonance and experienced discomfort: Evidence that dissonance increases experienced discomfort even in the absence of aversive consequences. *Personality and Social Psychology Bulletin*, *26*, 1490–1501.
- Heider, F. (1958). Attitudes and cognitive organization. *Journal of Psychology*, *21*, 107–112.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, *94*, 319–340.
- Hornsey, M. J. (2005). Why being right is not enough: Predicting defensiveness in the face of group criticism. *European Review of Social Psychology*, *16*, 301–334.
- Jonas, K., Broemer, P., & Diehl, M. (2000). Attitudinal ambivalence. *European Review of Social Psychology*, *11*, 35–74.
- McGregor, I., Newby-Clark, I. R., & Zanna, M. P. (1999). “Remembering” dissonance. Simultaneous accessibility of inconsistent cognitive elements moderates epistemic discomfort. In E. Harmon-Jones & J. Mills (Eds.), *Cognitive dissonance: Progress on a pivotal theory in social psychology* (pp. 325–353). Washington, DC: American Psychological Association.
- Newby-Clark, I. R., McGregor, I., & Zanna, M. P. (2002). Thinking and caring about cognitive inconsistency: When and for whom does attitudinal ambivalence feel uncomfortable? *Journal of Personality and Social Psychology*, *82*, 157–166.
- Ostrom, T. M. (1969). The relationship between the affective, behavioral, and cognitive components of attitude. *Journal of Experimental Social Psychology*, *5*, 12–30.

- Priester, J. R., & Petty, R. E. (1996). The gradual threshold model of ambivalence: Relating the positive and the negative bases of attitudes to subjective ambivalence. *Journal of Personality and Social Psychology, 71*, 431–449.
- Priester, J. R., & Petty, R. E. (2001). Extending the bases of subjective attitudinal ambivalence: Interpersonal and intrapersonal antecedents of evaluative tension. *Journal of Personality and Social Psychology, 80*, 19–34.
- Scott, W. A. (1966). Measures of cognitive structures. *Multivariate Behavior Research, 1*, 391–395.
- Scott, W. A. (1969). Structure of natural cognitions. *Journal of Personality and Social Psychology, 12*, 261–278.
- 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*. Monterey, CA: Brooks/Cole.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Austin & W. G. Austin (Eds.), *Psychology of inter-group relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty, & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361–386). Mahwah, NJ: Lawrence Erlbaum.
- Turner, J.C., Hogg, M. A., Oakes, P.J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, England: Blackwell.
- Wann, D. L., & Branscombe, N. R. (1993). Sports fan: Measuring degree of identification with their team. *International Journal of Sport Psychology, 24*, 1–17.
- Zanna, M. P., & Rempel, J. K. (1988). Attitudes: A new look at an old concept. In D. Bar-Tal & A. W. Kruglanski (Eds), *The social psychology of knowledge* (pp. 315–334). Cambridge, England: Cambridge University Press.

*Received December 21, 2009*

*Accepted April 6, 2011*