# Intergroup Threat and Experienced Affect: The Distinct Roles of Causal Attributions, Ingroup Identification, and Perceived Legitimacy of Intergroup Status

Sandro Costarelli

*Pers Soc Psychol Bull* 2007; 33; 1481 originally published online Jul 17, 2007;
DOI: 10.1177/0146167207303950

# Intergroup Threat and Experienced Affect: The Distinct Roles of Causal Attributions, Ingroup Identification, and Perceived Legitimacy of Intergroup Status

**Sandro Costarelli**
*University of Trento, Italy*

*Across three studies, it was predicted and found that in the case of intergroup threat, low ingroup identifiers experience greater negative affect when they make an ingroup-internal rather than an outgroup-internal attribution, and high ingroup identifiers experience greater negative affect when they make an outgroup-internal rather than an ingroup-internal attribution. These effects were mediated by the perceived legitimacy of ingroup–outgroup status differences that results from their reflecting social reality (i.e., actual differences in the groups' standing on a relevant comparison dimension). Combining the findings of two distinct literatures, the current work provides new insights into the yet-unexplored distinct roles played by intergroup attributions as a predictor and ingroup identification as a moderator of the affective responses produced by social identity threat.*

***Keywords:*** *threat; attributions; legitimacy; group-based emotions; social identity; group identification; group processes*

Extensive theoretical and empirical work has investigated the psychological consequences of perceiving a threat to one's own personal (Higgins, 1987) and social identities (Ellemers, Spears, & Doosje, 2002). Among others, threatening outcomes of intergroup comparisons have been found to have an affective impact paralleling in valence the effect exerted by interindividual comparisons (e.g., McFarland & Ross, 1982; Miller & Ross, 1975; Weiner, Russell, & Lerman, 1979; for a review, see Collins, 1996): (un)pleasant to the extent that comparison outcomes are relatively self-(un)favorable (after Lang, Bradley, & Cuthbert, 1998; for a review, see Ellemers & Barreto, 2001). Accordingly, consistent with the motivational character of the social identity value principle (Tajfel & Turner, 1979, 1986), outcomes that are unfavorable to the ingroup have been suggested to instantiate a threat to one's social identity (Branscombe, Ellemers, Spears, & Doosje, 1999; Breakwell, 1986; Ouwerkerk & Ellemers, 2002).

## Threat–Affect Relations as Moderated by Attributions

As recently noted by Ouwerkerk and Ellemers (2002), previous work in this area has underresearched the role played by a key moderator of the subjective experience of social life, namely, causal attributions (Weiner, 1985). Thus, the current investigation was designed to investigate this issue. Specifically, it was focused on the potential link between attributions and the affective consequences of intergroup threat. Unlike prior research on intergroup attribution (e.g., Hewstone, 1990; Hewstone & Jaspars, 1982), a novel aspect of the present work is its treatment of attributions as independent rather than dependent variables. Indeed, the study of attribution–affect relations has a considerable theoretical (Weiner, 1985) and empirical tradition in classic (e.g., Weiner et al., 1979) as well as recent (e.g., Trafimow, Bromgard, Finlay, & Ketelaar, 2005) work on interpersonal social comparison processes (e.g., Festinger,

**Author's Note:** The author is thankful to Pasquale Colloca and Rose Marie Callà for help with data inputting. Correspondence concerning this article should be sent to Sandro Costarelli, Department of Cognitive Sciences and Education, University of Trento, via M. Del Ben n. 5, Rovereto (TN), Italy; e-mail: sandro.costarelli@unitn.it.

*PSPB*, Vol. 33 No. 11, November 2007 1481-1491
DOI: 10.1177/0146167207303950

1957). This prior work shows that greater negative affect is experienced when the individual attributes outcomes of interpersonal comparisons that threaten personal identity to causes that are internal to the self (e.g., competence or morality) rather than to causes that are external to the self (e.g., situation or chance).

### Threat–Affect Relations as Moderated by Ingroup Identification

At face value, this empirical pattern should extend to comparison outcomes threatening social identity. Thus, from a social identity perspective (Tajfel & Turner, 1979, 1986), it might be argued that people strongly identifying with their group (i.e., high identifiers) should experience emotions deriving from their group membership more strongly than people for whom their group membership is less essential (i.e., low identifiers). In terms of attribution theory (Weiner, 1985), this suggests that for threatening comparison outcomes to have psychological consequences, a sufficiently high degree of ingroup identification is needed to develop a sense of ingroup rather than individual responsibility (cf. Terry & Hogg, 1996; Weiner, 1985; for a review and discussion, see Ellemers & Barreto, 2001).

Recent work suggests that this general pattern needs to be qualified depending on the valence of the emotion considered. Concerning negative affective reactions, Branscombe et al. (1999) suggested that "precisely because of the strength of their group identity, . . . [high identifiers] are not always the most sensitive group members to threats to their social identity value" (p. 49; see also Ellemers et al., 2002). For example, die-hard soccer fans can be expected to quickly discount even the most inexcusable poor performance of their team. Similarly, Doosje, Branscombe, Spears, and Manstead (1998; see also Bizman, Yinon, & Krotman, 2001) found that group-based negative emotions "are only likely to be experienced by people who admit or accept that their group has done something wrong in the first place" (p. 879). These authors further argued that because high identifiers are unlikely to accept a negative interpretation of their group's behavior, they use defensive means of dealing with such a group-threatening situation by explaining away their group's negative behavior. Doing so prevents high identifiers from experiencing the typically negative affective consequences of social identity threat. Of relevance to the present context, Doosje et al. (1998) also found empirical support for the reverse argument: Because low identifiers are typically more willing to accept the idea that their group has done something wrong, they are less likely to display defensive reactions and are therefore more likely to experience group-based negative emotions.

Together, this prior work suggests that only to the extent that one does not identify with the group will an ingroup-internal attribution for unfavorable outcomes of intergroup comparisons (e.g., being told that a match has been lost because the players were unable to coordinate) not be efficiently discounted. For low but not high identifiers, such a negative ingroup-internal attribution will be perceived as a more serious identity threat, leading in turn to a greater negative affective response, than would an ingroup-external attribution for unfavorable outcomes of intergroup comparisons (e.g., being informed that the referee was unfair). No prior research has tested this argument, and filling this void was one of the aims of the current work.

### Threat–Affect Relations as Moderated by Ingroup Versus Outgroup Target of Attributional Internality

Prior research allows one to anticipate ingroup versus outgroup target internality of attributions for ingroup unfavorable comparison outcomes to be differentially threatening for low and high identifiers, and thus to produce a corresponding differentially negative affective response. Ingroup identification is positively associated with perceived salience of relevant outgroups (cf. Tajfel & Turner, 1979). As a consequence, high identifiers should be particularly attuned to outgroup responsibility (merits) rather than to ingroup responsibility (shortcomings) for outcomes unfavorable to the ingroup. For die-hard soccer fans, for example, information underlining that their beloved team lost a match because the rival team's players were particularly good at coordinating should lead them to experience greater negative affect than information underlining that their beloved team's players kept making serious strategy mistakes throughout the game. Accordingly, it is predicted that high but not low identifiers experience negative affect when ingroup unfavorable outcomes of intergroup comparisons are attributed to an outgroup's superior performance (an outgroup-internal attribution) rather than to the ingroup's poorer performance (an ingroup-internal attribution that, as noted previously, die-hard soccer fans can be expected to quickly discount; Bizman et al., 2001; Doosje et al., 1998).

Conversely, it is predicted that low identifiers will be particularly attuned, and therefore affectively vulnerable, to attributions highlighting ingroup unfavorable outcomes of intergroup comparisons as being determined by ingroup shortcomings (an ingroup-internal attribution) rather than by outgroup merits (an outgroup-internal attribution). As noted previously, because low identifiers are typically more willing to accept the idea that their group has done something wrong, they are less likely to display defensive reactions and

are therefore more likely to experience group-based negative emotions (Doosje et al., 1998).

### Threat–Affect Relations as Mediated by Perceived Legitimacy of Status Differentials

Stangor and Ford (1992) suggested that although individuals are motivated to favor themselves or their group (intergroup bias), they are also attuned to social reality and do not want to make claims that seem unwarranted (see also Doosje, Spears, & Koomen, 1995; Ellemers, Van Rijswijk, Roefs, & Simons, 1997; Spears & Manstead, 1989). Thus, when a team is ranked low in a competition, the inferred low standing of the group is a fact that cannot be denied: Membership of this group (the team) therefore cannot contribute to a positive social identity via intergroup bias. Accordingly, and in line with the predictions of social identity theory (Ellemers, 1993; Tajfel & Turner, 1979, 1986), the perceived legitimacy of ingroup–outgroup status differences has been found to play an important role in determining the quality of the negative reactions to intergroup threat (e.g., Ellemers & Barreto, 2001; Ellemers, Barreto, & Spears, 1999; Schmitt & Branscombe, 2002; Weber, Mummendey, & Waldzus, 2002). However, Tajfel and Turner (1986) also point out the role of ingroup identification in moderating group members' reactions when the status of the ingroup is relatively low vis-à-vis a relevant outgroup.

Accordingly, high identifiers should be more prone to acknowledge legitimacy of ingroup unfavorable outcomes of intergroup comparisons determined by outgroup merits rather than by ingroup shortcomings. Conversely, low identifiers should be more prone to acknowledge legitimacy of ingroup unfavorable outcomes of intergroup comparisons determined by ingroup shortcomings rather than by outgroup merits. Together, this leads to the final prediction that the perceived legitimacy of the intergroup status differential will mediate the respective effects expected for low and high identifiers in Study 3.

## STUDY 1

In Study 1, ingroup identification was measured and locus of causal attributions was manipulated. Specifically, in a competence-based comparison setting, first, it was tested whether an ingroup-internal rather than an outgroup-internal attribution for ingroup unfavorable outcomes elicits greater negative affect when ingroup identification is low but not when it is high. Second, it was tested whether high (but not low) identifiers experience greater negative affect under conditions of outgroup-internal rather than ingroup-internal attributions for threatening outcomes of intergroup comparison.

### Method

#### *Participants and Design*

Participants were 50 female high school students (*M* age = 19.29) from Bolzano, Italy. This study capitalized on a linguistically defined, naturally occurring ingroup in selecting the experimental sample: The participants, or ingroup members, belonged to the Italian-speaking ethnic-linguistic population living in Bolzano (the main town of the Italian South-Tyrol territory). The target outgroup was defined as high school students who were members of the German-speaking ethnic-linguistic population group living in the same town. The design was a 2 (attributions: ingroup-internal vs. outgroup-internal) × continuous measure (ingroup identification).

#### *Procedure*

After a regular lecture, students volunteering to participate in a national survey were given a questionnaire to fill out. Participants were told the study was being conducted by a governmental agency to compare school achievements of Italian-speaking students (the participants' ingroup) and German-speaking students (the participants' outgroup) attending high school in Bolzano. First, ingroup identification was assessed. Next, different types of bogus research results were presented to participants across experimental conditions, manipulating the perceived locus of the attribution made for the threatening information (Ellemers, Wilke, & Van Knippenberg, 1993). Specifically, in the ingroup-internal attribution condition, participants were informed that ingroup unfavorable outcomes of the intergroup comparison (poorer school achievements of fellow ingroup members) had been ascertained to result from the lower mean amount of time spent doing homework and lower number of books read yearly by the local Italian-speaking high school students. In the outgroup-internal attribution condition, participants were informed that ingroup unfavorable outcomes of the intergroup comparison (poorer school achievements of fellow ingroup members) had been ascertained to result from the higher mean amount of time spent doing homework and higher number of books read yearly by the local German-speaking high school students. Subsequently, manipulation checks were taken for the attributions made for the intergroup comparison outcome.

Next, experienced negative affect was assessed. After all participants had completed the questionnaire, they were debriefed and thanked.

### *Meaures*

*Ingroup identification*. Participants were asked to answer five items developed by Cadinu and Reggiori (2002) to measure the level of identification with professional groups (as adapted for the current ingroup, i.e., Italian-speaking high school students in Bolzano). Examples of the items on the identification scale were: "I feel like a member of the category of Italian-speaking high school students in Bolzano"; "I am proud to be an Italian-speaking high school student in Bolzano"; "I often think of myself as an Italian-speaking high school student in Bolzano." The identification scale showed satisfactory internal consistency (alpha = .85).

*Manipulation check*. Participants were asked to answer three items developed to measure whether attributions for the ingroup unfavorable status differential were more ingroup internal or outgroup internal (1 = *The reasons behind the facts emerging from the data reported above have much more to do with reasons that can be considered as being internal to Italian-speaking high school students in Bolzano,* 7 = *The reasons behind the facts emerging from the data reported above have much more to do with reasons that can be considered as being internal to German-speaking high school students in Bolzano;* alpha = .82).

*Affect*. Participants were administered the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Specifically, they were asked to report the extent to which each of 10 emotional adjectives applied to how they were feeling at the moment. Participants were instructed not to think too much about their ratings and instead give quick, gut-level responses. Because general, negative affective reactions were the focus, negatively valenced and the reverse-scored positively valenced affective items were combined to provide a single index of negative affect. This choice was validated by the results of a principal components analysis on the 10 emotion items specifying that the factors with eigenvalues greater than 1 should be retained. A one-factor solution was extracted, accounting for 65% of the variance. All factor loadings exceeded .69. The measure had good internal consistency (alpha = .84). In sum, when not otherwise noted, all responses were expressed on 7-point scales (1 = *not at all,* 7 = *very much*).

## Results and Discussion

### *Descriptive Statistics*

Concerning intercorrelations between the independent variables, the attribution manipulation correlated with the manipulation check (0.32, $p < .05$) and with ingroup identification (–0.05, *ns*), whereas the manipulation check correlated with ingroup identification (0.23, *ns*).

### *Manipulation Checks*

An ANOVA (attribution manipulation effect coding: –1 = *ingroup-internal,* +1 = *outgroup internal;* ingroup identification: continuous regressor) on the attribution manipulation check scores revealed a significant main effect of attribution, $F(1, 49) = 4.76$, $p < .05$, and no other effects, $F$s(1, 49) < 0.40, $p$s > .82. Participants in the outgroup-internal attribution condition ($M = 4.39$, $SD = 0.70$) reported to make more outgroup-internal attributions than participants in the ingroup-internal condition ($M = 3.85$, $SD = 0.89$).

### *Affect*

It was expected that ingroup identification would moderate the impact of causal attributions on negative affect. Specifically, after receiving an ingroup-internal attribution, weaker group identification was hypothesized to be associated with greater negative affect. In contrast, stronger group identification was predicted to be associated with greater negative affect after receiving an outgroup-internal attribution. To test this, an ANOVA was conducted with the attribution manipulation entered as a categorical factor (effect coding: –1 = *ingroup internal,* +1 = *outgroup internal*) and ingroup identification entered as a continuous regressor. Negative affect was the dependent variable. In no instance did the correlation between any two variables approach the mean scale reliability (cf. Campbell & Fiske, 1969). Thus, multicollinearity was not considered a threat to the stability of the analyses.

Neither main effect was significant: attribution condition, $B = –0.14$, $SE = .45$, $t = –0.98$, *n*s, and identification, $B = –0.02$, $SE = .19$, $t = –0.24$, *n*s. However, as predicted, the Attribution × Identification interaction was significant, $B = –0.37$, $SE = .14$, $t = –2.49$, $p < .05$. Test of simple slopes for the regression of attribution on negative affect were performed at two levels of the manipulation variable (cf. Aiken & West, 1991). Consistent with predictions, for participants in the ingroup-internal attribution condition, greater negative affect was associated with weaker identification, $B = –0.76$, $SE = .27$, $t(23) = –2.83$, $p < .05$. In contrast, as expected, for participants in the outgroup-internal attribution condition, greater negative affect was associated with stronger identification, $B = .47$, $SE = .14$, $t(27) = 3.27$, $p < .01$.

Together, the results of Study 1 provide preliminary support for the notion that low but not high identifiers experience greater negative affect when they face a group-internal attribution for threatening outcomes of intergroup

comparison. Additionally, Study 1 provides evidence that high identifiers are also sensitive, and therefore react negatively, to an identity-threatening attributional context, albeit a different one. Specifically, this is the case when high identifiers attribute to the outgroup the causes of an extant ingroup unfavorable status differential.

## STUDY 2

A limitation of the preceding study was that a no-threat control condition was absent. This allows for the alternative explanation that the findings are not inherently threat specific: Intergroup comparison by itself may elicit anxious responses in group members irrespective of whether the outcomes are favorable or unfavorable for the ingroup. If this is the case, similar affective reactions may be expected for ingroup relative success rather than failure. In addition, ingroup-internal and outgroup-internal attributions for an extant ingroup unfavorable status differential were induced in participants by making specific reference to ingroup and outgroup members as their sources, respectively. Study 2 addressed these limitations by including a control no-threat condition in the research design and making specific reference to ingroup-internal and outgroup- internal attributions for an ingroup unfavorable status differential as stemming from ingroup limitations and faults and outgroup merits, respectively.

In Study 2, consistent with the theoretical framework outlined in the introduction, no affective responses to threat were expected in the no-threat control condition. In contrast, under conditions of intergroup threat, it was predicted that the more the ingroup unfavorable status differential was attributed to ingroup-internal causes (shortcomings) by low identifiers and to outgroup-internal causes (merits) by high identifiers, the greater the subsequent negative affect.

### Method

#### *Overview and Participants*

As in Study 1, ingroup identification was measured beforehand. The manipulation of social identity threat was instantiated by (non)threatening bogus information. Specifically, its content regarded EU research results concerning the relatively negative (threat condition), or the equally positive (no-threat condition), stereotype of Italians (the participants' ingroup) allegedly held by the rest of the European population relative to the stereotype of French people as a comparison outgroup. Next, ingroup-internal attributions (shortcomings) or outgroup-internal attributions (merits) for the intergroup status (non)differential were assessed to check whether, as predicted, they moderated the differentially negative responses to identity-threatening attributions that were expected as a function of participants' ingroup identification. Participants were 40 male Italian high school students (*M* age = 19.98).

#### *Procedure and Measures*

*Ingroup identification.* After a regular lecture, students volunteering to participate in an EU survey were given a questionnaire to fill out. In the questionnaire, participants were first asked to complete the Doosje, Ellemers, and Spears (1995) four-item ingroup identification scale (e.g., "I see myself as a [member of Group X]"; "I am pleased to be a [member of Group X]") to measure participants' level of ingroup identification (alpha = .82).

*Causal attributions.* It was then assessed whether participants in the (no-threat) threat condition attributed to a greater extent an intergroup status (nondifferential) differential to ingroup-internal causes (i.e., shortcomings) or to outgroup-internal causes (i.e., merits). To this end, participants were asked to answer the same three items used in the attribution manipulation check in Study 1 as adapted for the current target groups and operationalization of ingroup- versus outgroup-internal causal attributions (1 = *The reasons behind the facts emerging from the data reported above have much more to do with [can be considered as stemming from] [are the result of] Italians' limits and faults than with French people's merits and qualifications [stemming from French people's merits and qualifications] [are the result of French people's merits and qualifications];* 7 = *The reasons behind the facts emerging from the data reported above have much more to do with [can be considered as stemming from] [are the result of] French people's merits and qualifications than with Italians' limits and faults' [stemming from Italians' limits and faults] [are the result of Italians' limits and faults];* alpha = .71).

Finally, as in the preceding study, the post-manipulation affective state was assessed (alpha = .89). To this end, participants were administered the same items used in the preceding study to assess negative affect. After all participants had completed the questionnaire, they were debriefed and thanked. All responses were expressed on 7-point scales (1 = *not at all,* 7 = *very much*).

### Results and Discussion

#### *Descriptive Statistics*

Concerning intercorrelations between the independent variables used, the threat manipulation did not correlate

with ingroup identification (0.09, *ns*) and with ingroup and outgroup attributed internality (0.14, *ns*), whereas ingroup identification did not correlate with ingroup and outgroup attributed internality (–0.13, *ns*).

### *Preliminary Analyses*

First, a one-way ANOVA (social identity threat: threat vs. no threat) ascertained that the level of ingroup identification did not differ across experimental conditions (threat: $M = 3.74$, $SD = 1.\ 20$; no threat: $M = 3.68$, $SD = 1.02$), $F(1, 39) = 1.51$, *ns*.

### *Affect*

Consistent with the theoretical framework, under conditions of intergroup threat, it was predicted that the more the identity threat was attributed to ingroup-internal causes (shortcomings) by low identifiers and to outgroup-internal causes (merits) by high identifiers, the greater the subsequent negative affect. To test this prediction, an ANOVA was conducted with the identity threat manipulation entered as a categorical factor (0 = *no threat,* 1 = *threat*) and attributions and ingroup identification entered as a continuous regressor. Following Aiken and West's (1991) suggestion, scores for ingroup identification and attribution were computed and standardized. Then these scores were entered into Step 1 of the model, all two-way interaction terms were entered into Step 2, and the three-way interaction term was entered into Step 3. This model was tested with negative affect as a dependent variable. In no instance did the correlation between any two variables approach the mean scale reliability (cf. Campbell & Fiske, 1969). Thus, multicollinearity was not considered a threat to the stability of the analyses.

In line with predictions, inspection of the parameter estimates revealed that the Threat × Attribution × Identification interaction was significant, $t(40) = 2.72$, $p < .05$. Neither main effects, $t$s$(40) \leq 1.62$, $p$s $< .12$, nor two-way interaction effects, $t$s $< 0.13$, *ns,* were found. Following Aiken and West's (1991) suggestion, to decompose this three-way interaction, the computation of the Attribution × Identification interaction was performed and compared at the two levels of the manipulation variable: for participants in the threat condition and for participants in the no-threat control condition. As expected, no main or interaction effects were found for participants in the no-threat condition, $B$s $< .09$, $t$s $< 1$, *ns*. In contrast, for participants in the threat condition, the only significant effect was the expected interaction between identification and attribution on reported negative affect, $B = –0.59$, $SE = 0.18$, $t = –2.21$, $p < .05$. To decompose this interaction, tests of simple slopes for the regression of attribution on negative affect were performed by treating identification as a dichotomous factor. Therefore, the slope for attribution was computed separately for low-ingroup-identification (–1 *SD* from the mean) and high-ingroup-identification (+1 *SD* from the mean) participants allocated to the threat condition (cf. Aiken & West, 1991). Then, the results of these two sets of simple-slope analyses were compared. As hypothesized, the more the identity threat was attributed to ingroup-internal causes (shortcomings) by low identifiers, $B = –0.36$, $SE = 0.11$, $t = –2.44$, $p < .05$, and to outgroup-internal causes (merits) by high identifiers, $B = 0.31$, $SE = 0.22$, $t = 2.15$, $p < .05$, the greater the subsequent negative affect.

In sum, the results of Study 2 provided further support to the idea that low and high identifiers exhibit an increased level of discomfort to the extent that they make ingroup-internal and outgroup-internal causal attributions, respectively, for an extant threatening intergroup status differential. Specifically, two characteristics of Study 2 rule out the alternative explanation that the effects in Study 1 are not inherently threat related. First, as predicted, in the current study no such findings were observed in a control (no-threat) condition, which was missing from the research design in Study 1. Second, the findings of Study 2 were replicated despite the specific reference that was made, unlike in Study 1, to ingroup-internal and outgroup-internal attributions for a group unfavorable status differential as stemming from ingroup limitations and outgroup merits, respectively.

## STUDY 3

Study 3 addressed three goals. First, it aimed at replicating the pattern of results found in Studies 1 and 2 where low identifiers make ingroup-internal attributions and high identifiers make outgroup-internal attributions for a threatening intergroup status differential. Second, it tested the argument that perceived legitimacy of the intergroup status differential mediates the effects found in Studies 1 and 2. On the one hand, low identifiers are typically more willing than high identifiers to accept the idea that their group has done something wrong (Doosje et al., 1998). On the other, high identifiers are more sensitive than low identifiers to the characteristics of any relevant outgroup that is present in the intergroup context (Tajfel & Turner, 1979). Accordingly, low identifiers should be more prone to acknowledge the legitimacy of ingroup unfavorable outcomes of intergroup comparisons determined by ingroup shortcomings rather than by outgroup merits. Conversely, high identifiers should be more prone to acknowledge the legitimacy of ingroup unfavorable outcomes of intergroup

**TABLE 1:** Zero-Order Correlations, Study 3

| *Variable* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|
| 1. Threat manipulation (0 = *no threat*, 1 = *threat*) | — | | | |
| 2. Ingroup identification | 0.12 | — | | |
| 3. Ingroup/outgroup attributed internality | 0.15 | –0.12 | — | |
| 4. Perceived legitimacy | 0.14 | 0.19 | –0.08 | — |
| *M* | 3.61 | 4.91 | 3.66 | 3.83 |
| *SD* | 0.60 | 0.15 | 0.46 | 0.34 |

NOTE: $N = 86$.
*$p < .05$.

comparisons determined by outgroup merits rather than by ingroup shortcomings. Together, this leads to the final prediction that perceived legitimacy of the intergroup status differential will mediate the respective effects expected for low and high identifiers in Study 3. Finally, potential sampling bias in the preceding studies was addressed by using different types of target groups: academic rather than ethnic groups (Study 1) or national groups (Study 2).

## Method

### *Participants and Design*

In the present study, the participants were 86 female psychology students (*M* age = 19.47) from the University of Trento, Italy. The design was similar to Study 2 except for one difference: The target ingroup and outgroup were defined as psychology and medicine students, respectively. Both the operationalization of causal attributions and the threat manipulation were the same as in the preceding study. Prior research on the consequences of intergroup threat has successfully used the traditionally intense rival relationship between psychology and medicine students (e.g., Cadinu & Reggiori, 2002). In addition, the content of the threatening bogus information provided to participants allocated to the threat condition was rooted in social reality; indeed, medicine students are stereotypically seen as more academic, and thus more competent, than psychology students (Cadinu & Reggiori, 2002).

### *Procedure and Measures*

The procedure was similar to Study 2 except for one difference: Immediately before measurement of the affective responses, perceived legitimacy of the intergroup status differential was assessed. To this end, participants were administered the same three items as in Study 1 as adapted for the current type of target groups (I think it is justified [right] [legitimate] that medicine students are considered better than psychology ones; alpha = .81). After all participants had completed the questionnaire, they were debriefed and thanked. In sum, except for these latter three items, all measures were identical to those used in Study 2, with responses expressed on 7-point scales (1 = *not at all,* 7 = *very much*).

## Results and Discussion

### *Preliminary Analysis*

First, a one-way ANOVA (social identity threat: threat vs. no threat) ascertained that the level of ingroup identification did not differ across the different experimental conditions (threat: $M = 3.66$, $SD = 0.48$; no threat: $M = 3.56$, $SD = 0.72$), $F(1, 85) = 0.34$, *ns*. Intercorrelations between the independent variables used are shown in Table 1.

### *Affect*

To test predictions, an ANOVA was conducted with the identity threat manipulation entered as a categorical factor (0 = *no threat,* 1 = *threat*) and causal attributions as well as ingroup identification entered as a continuous regressor. Following Aiken and West's (1991) suggestion, scores for ingroup identification and attribution were again computed and standardized. Then these scores were entered into Step 1 of the model, all two-way interaction terms were entered into Step 2, and the three-way interaction term was entered into Step 3. Negative affect was the dependent variable. In no instance did the correlation between any two variables approach the mean scale reliability (cf. Campbell & Fiske, 1969). Thus, multicollinearity was not considered a threat to the stability of the analyses.

Results for negative affect revealed neither main effects, *t*s(86) < 1.28, *n*s, nor two-way interaction effects, *t*s < –1.40, *ns*. More important, in line with predictions, the analysis revealed a significant interaction among threat, attribution, and identification, $t(86) = 2.34$, $p < .05$. To decompose this three-way interaction, the Attribution × Identification interaction was computed

**TABLE 2:** Mediated–Moderation Analysis, Study 3

| *Predictors* | *Criterion Negative Affect* B (t) | *Criterion Legitimacy* B (t) | *Criterion Negative Affect* B (t) |
|---|---|---|---|
| X: Ingroup/outgroup internality | –0.01 (–0.32) | –0.01 (–0.52) | –0.15 (–0.92) |
| MOD: Ingroup identification | –0.19 (–1.18) | 0.18 (1.18) | –0.01 (–0.27) |
| X*MOD: Internality*Identification | 0.41 (2.10)* | –0.38 (–2.08)* | 0.20 (1.19) |
| MED: Perceived legitimacy | | | –0.75 (–3.72)** |
| MED*MOD: Legitimacy*Identification | | | –0.28 (–0.53) |

NOTE: X = predictor variable; MOD = moderator variable; MED = mediator variable.
*$p < .05$. **$p < .01$.

separately for participants in the threat condition and for participants in the no-threat (control) condition. In line with predictions, no effects were found for participants in the no-threat condition, $t$s(40) < 1.15, $p$s < .28. In contrast, for participants in the threat condition, the expected Attribution × Identification interaction was found, $t(46) = 2.10$, $p < .05$. No other effects were significant, $t$s(46) < –1.16, $p$s < .25. Tests of simple slopes for the regression of attribution on negative affect were computed separately for low-ingroup-identification (–1 *SD* from the mean) versus high-ingroup-identification (+1 *SD* from the mean) participants (cf. Aiken & West, 1991). This showed that more negative affect was experienced, the more the threat to the group identity was attributed to ingroup-internal causes (shortcomings) by low identifiers, $B = –0.51$, $SE = .20$, $t(24) = –2.54$, $p < .05$, and to outgroup-internal causes (merits) by high identifiers, $B = .42$, $SE = .21$, $t(22) = 2.02$, $p < .05$.

### *Mediation Analysis*

To test the hypothesis that the effects observed among low- and high-identification participants under conditions of identity threat were mediated by the perceived legitimacy of the intergroup status differential, the procedure indicated by Mueller, Judd, and Yzerbyt (2005) was used. This choice was driven by the fact that in the current study the mediator was predicted to drive the effects of both slopes of the moderator (identification) on the criterion, which is different from the simple-mediation procedure proposed by Baron and Kenny (1986).

The Mueller et al. (2005) procedure involves three separate regression analyses (see Table 2). The first analysis revealed, as previously indicated, the Attribution × Identification interaction on negative affect, $B = .41$, $SE = .19$, $p < .05$. The second analysis showed that the Attribution × Identification interaction predicted legitimacy (the mediator), $B = –0.38$, $SE = .16$, $p < .05$. The third analysis revealed that when the Identification × Legitimacy (Moderator × Mediator) interaction, legitimacy (the mediator) and the Attribution × Identification (independent variable × the moderator) interaction were simultaneously entered in a regression model predicting negative affect, the effect of the Identification × Legitimacy interaction was nonsignificant, $B = –0.02$, $SE = .54$, $p < .61$. In contrast, the effect of legitimacy was significant, $B = –0.75$, $SE = .20$, $p < .01$, whereas the Attribution × Identification interaction became nonsignificant, $B = .20$, $SE = .17$, $p < .25$. This reduction in the predictive value of the moderation of the main effect of attribution (the independent variable) by identification (the moderator) on negative affect (from $B = .41$ to $B = .20$) was significant by Sobel's (1982) test ($z = –2.01$, $p < .05$).

Once it was ascertained that the effect of the omnibus Attribution × Identification interaction on negative affect was mediated by perceived legitimacy of the ingroup unfavorable status differential, simple mediation of the effects previously reported for low and high identifiers was tested. Two separate simple-mediation analyses were conducted for low- and high-ingroup identification participants (cf. Baron & Kenny, 1986). Among low identifiers, the analysis revealed that attributions (the predictor) were negatively related to negative affect, $B = –0.51$, $SE = .20$, $p < .05$, and to legitimacy, $B = –0.41$, $SE = .11$, $p < .05$. When the effect of legitimacy was controlled for by entering it into the regression model, the path from legitimacy to negative affect was significant, $B = 1.17$, $SE = .43$, $p < .05$. However, the direct path from attribution to negative affect was no longer reliable, $B = –0.29$, $SE = .18$, $p < .14$. This reduction in the predictive value of attribution was significant ($z = –2.19$, $p < .05$).

Among high identifiers, the analysis revealed a significant effect of attributions on negative affect, $B = .42$, $SE = .21$, $p < .05$, and on legitimacy, $B = .40$ $SE = .10$, $p < .05$. When the effect of legitimacy was controlled for, the path from legitimacy to negative affect was highly significant, $B = 1.92$, $SE = .18$, $p < .001$. However, the direct path from attribution to negative affect was no longer reliable, $B = .01$, $SE = .07$, $p < .70$. This reduction in the predictive value of attribution was significant ($z = 3.74$, $p < .001$).

All in all, results are similar to those of Studies 1 and 2 for low identifiers making ingroup-internal attributions and for high identifiers making outgroup-internal attributions. The present study also shows that perceived legitimacy of the intergroup status differential mediates the effects of threat on negative affect.

## GENERAL DISCUSSION

Despite calls for more research in this area (e.g., Hewstone, 1990; Ouwerkerk & Ellemers, 2002), the moderating role of causal attributions on the affective consequences of social identity threat has received limited attention in empirical studies. The present article attempted to fill this gap by providing new insights into the interactive roles of attributions for threatening intergroup comparisons and ingroup identification. Across three studies, it was demonstrated that under manipulated conditions of intergroup threat, greater negative affect is experienced to the extent that low ingroup identifiers make an ingroup-internal attribution rather than an outgroup-internal attribution, and high ingroup identifiers make an outgroup-internal attribution rather than an ingroup-internal attribution for outcomes of intergroup comparison that threaten their social identity. It was further demonstrated that such effects are mediated by the perceived legitimacy of ingroup–outgroup status differences that result from their reflecting social reality (i.e., actual differences in the groups' standing on a relevant comparison dimension).

The results of the current research are consistent with the argument that causal attributions are important moderators of the subjective experience of social life (e.g., Weiner, 1985, 1986, 1995). In addition, they are in line with theoretical (e.g., Branscombe et al., 1999) and empirical (e.g., Bizman et al., 2001; Doosje et al., 1998) work showing that ingroup identification moderates the affective consequences of social identity threat. Finally, the current results support the notion that perceiving intergroup status differentials as legitimate (i.e., actual differences in the groups' standing on a relevant comparison dimension) is an important psychological factor underpinning such group-level responses (Ellemers & Barreto, 2001; Ellemers et al., 1999; Weber et al., 2002).

The present work contributes to the literature in two ways. First, the result that negative affect is experienced as a consequence of making internal attributions for social identity threat to the ingroup for low identifiers and to the outgroup for high identifiers extends previous evidence from research conducted at the interpersonal level (e.g., McFarland & Ross, 1982) to the domain of intergroup relations. Furthermore, the affective consequences of the ingroup versus outgroup locus of the cause dimension of attributions under conditions of intergroup threat have not been demonstrated before. Likewise, the present demonstration of the moderating role played by ingroup identification, and of the mediating role of perceived legitimacy in those processes, is also novel. As such, the present work highlights the important roles played by both ingroup identification and perceived legitimacy of status differences for psychological processes that take place in contexts where people's social identity value is at stake.

A potential limitation of the present research relates to the attribution measure in Studies 2 and 3. Specifically, a bipolar scale was used to assess whether participants allocated to the social identity threat condition attributed the threatening information more to the limitations of the ingroup (one scale pole) or to the merits of the comparison outgroup (the other scale pole). Future work should ascertain whether the present findings are replicated when these two types of related constructs are measured using two scales (with one assessing each of them) rather than a single scale. It should be noted, however, that in the current research relative ingroup internality and relative outgroup internality of intergroup attributions are conceived of as inversely related by definition; thus, the use of a bipolar scale seems appropriate.

There are promising avenues for follow-up research. Specifically, in the current work, target-group internality for social identity threat and group identification were found to interact in producing discomfort. This finding is consistent with the prediction of self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) that low identifiers are more likely to self-categorize at the individual level than at the group level. As a consequence, relative to high identifiers, low identifiers should be more likely to perceive ingroup unfavorable comparison outcomes as being diagnostic for their own evaluation as individuals than as members of a group with which they scarcely identify. This argument is consistent with prior suggestions (e.g., Deaux, 1984) that external but not internal categorization as a member of a social group is perceived as threatening because this implies indications of personal, rather than ingroup members', poor competence. In turn, this notion is consistent with the proposed argument that low but not high identifiers under such conditions experience negative affect (see Barreto & Ellemers, 2003, for a related discussion). In a similar vein, Spears, Doosje, and Ellemers (1997) found that, in a context that implied a devalued group membership, low identifiers were unwilling to self-stereotype as members of that group. This evidence is consistent with a specific interpretation of our finding that target-group internality for social identity threat and group identification interact in producing discomfort. Specifically, target internality of

attributions may pose distinct types of threat to self (Branscombe et al., 1999) as a function of the level of identification with the group in question, namely, a social categorization threat for low identifiers and a social identity value threat for high identifiers (cf. Barreto & Ellemers, 2003). Future research should explore the empirical tenability of this speculation.

A final note is in order regarding an attributional dimension other than the one considered in the present article (locus of control), namely, controllability (Kelley, 1967, 1973). Efficacy-based approaches to well-being view this latter state as influenced by the perception of control over one's outcomes (e.g., Bandura, 1997). People are likely to view social group membership as a stable attribute on which they can thus exert low control. As a consequence, the difficult enterprise of changing one's standing on this attribute will require considerable time and energy (cf. Arnkelsson & Smith, 2000). Consistent with efficacy-based theoretical perspectives, for experimental scenarios involving participants' perceptions of the relatively negative social status of their group vis-à- vis a relevant outgroup, unpleasant affect should therefore be a likely by-product. The empirical tenability of this speculation seems worth exploring in future research.

In conclusion, the results of the present research point to the importance of taking group members's intergroup attributions into account in terms of (ingroup vs. outgroup) target group internality when considering the relationship between the level of group identification and negative affective responses to social identity threat because they may moderate this relationship via the mediation of perceived legitimacy of the threatening intergroup status differential.

## REFERENCES


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

Arnkelsson, G. B., & Smith, W. P. (2000). The impact of stable and unstable attributes on ability assessment in social comparison. *Personality and Social Psychology Bulletin, 26,* 936-947.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Barreto, E., & Ellemers, N. (2003). The effects of being categorized: The interplay between internal and external social identities. *European Review of Social Psychology, 14,* 139-170.

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., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity context, commitment, content* (pp. 35-58). Oxford, UK: Basil Blackwell.

Breakwell, G. M. (1986). *Coping with threatened identities*. New York: Methuen.

Cadinu, M., & Reggiori, C. (2002). Discrimination of a low-status outgroup: The role of ingroup threat. *European Journal of Social Psychology, 32,* 501-515.

Campbell, D. T., & Fiske, D. W. (1969). Convergent and discriminant validation by the multi-trait multi-method matrix. *Psychological Bulletin, 56,* 81-105.

Collins, R. L. (1996). For better or worse: The impact of upward social comparison on self-evaluation. *Psychological Bulletin, 119,* 51-69.

Deaux, K. (1984). From individual differences to social categories: Analysis of a decade's research on gender. *American Psychologist, 39,* 105-116.

Doosje, B., Branscombe, N. R., Spears, R., & Manstead, A. 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.

Doosje, B., Spears, R., & Koomen, (1995). When bad isn't all bad: The strategic use of sample information in generalization and stereotyping. *Journal of Personality and Social Psychology, 69,* 642-655.

Ellemers, N., & Barreto, E. (2001). The impact of relative group status: Affective, perceptual, and behavioral consequences. In R. Brown & S. Gaertner (Eds.), *The Blackwell handbook of social psychology* (Vol. 4, pp. 324-343). Oxford, UK: Basil Blackwell.

Ellemers, N., Barreto, E., & Spears, R., (1999). Commitment and strategic responses to social context. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 127-146). Oxford, UK: Basil Blackwell.

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology, 53,* 161-186.

Ellemers, N., Van Rijswijk, W., Roefs, M., & Simons, C. (1997). Bias in intergroup perceptions: Balancing group identity with social reality. *Personality and Social Psychology Bulletin, 23,* 186-198.

Ellemers, N., Wilke, H., & Van Knippenberg, A. (1993). Effects of the legitimacy of low group or individual status on individual and collective identity and enhancement strategies. *Journal of Personality and Social Psychology, 64,* 758-766.

Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.

Hewstone, M. (1990). The "ultimate attribution error"? A review of the literature on intergroup causal attribution. *European Journal of Social Psychology, 20,* 311-335.

Hewstone, M., & Jaspars, J. (1982). Intergroup relations and attribution processes. In H. Tajfel (Ed.), *Social identity and intergroup relations*. Cambridge, UK: Cambridge University Press.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319-340.

Kelley, H. H. (1967). Attribution theory in social psychology. *Nebraska Symposium on Motivation, 15,* 192-240.

Kelley, H. H. (1973). The process of causal attribution. *American Psychologist, 28,* 107-128.

Lang, P. J., Bradley, M. M., & Cuthbert, B. N. (1998). Emotion, motivation, and anxiety: Brain mechanisms and psychophysiology. *Biological Psychiatry, 44,* 1248-1263.

McFarland, C., & Ross, M. (1982). Impact of causal attributions on affective reactions to success and failure. *Journal of Personality and Social Psychology, 43,* 937-946.

Miller, D. M., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin, 82,* 213-225.

Mueller, D., Judd, C. J., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology, 89,* 852-863.

Ouwerkerk, J., & Ellemers, N. (2002). The benefits of being disadvantaged: Performance-related circumstances and consequences of intergroup comparisons. *European Journal of Social Psychology, 32,* 73-91.

Stangor, C., and Ford, T. E. (1992). Accuracy and expectancy-confirming processing orientations and the development of stereotypes and prejudice. *European Review of Social Psychology, 3,* 57-89.
Schmitt, M. T., & Branscombe, N. R. (2002). The meaning and consequences of perceived discrimination on disadvantaged and privileged social groups. *European Review of Social Psychology, 12,* 167-199.
Spears, R., Doosje, B., & Ellemers, N. (1997). Self-stereotyping in the face of threats to group status and distinctiveness: The role of group identification. *Personality and Social Psychology Bulletin, 23,* 538-553.
Spears, R., & Manstead, A. S. R. (1989). The social context of stereotyping and differentiation. *European Journal of Social Psychology, 19,* 101-121.
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.
Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Austin & W. G. Austin (Eds.), *Psychology of inter-group relations* (pp. 7-24). Chicago: Nelson-Hall.
Terry, D. J., & Hogg, M. A. (1996). Group norms and the attitude behavior relationship. A role for group identification. *Personality and Social Psychology Bulletin, 22,* 776-793.
Trafimow, D., Bromgard, I. K., Finlay, K. A., & Ketelaar, T. (2005). The role of affect in determining the attributional weight of immoral behaviors. *Personality and Social Psychology Bulletin, 31,* 935-948.
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, UK: Basil Blackwell.
Watson, D., Clark, L. A., & Tellegen, L. G. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54,* 1063-1070.
Weber, U., Mummendey, A., & Waldzus, S. (2002). Perceived legitimacy of intergroup status differences: Its prediction by relative ingroup prototipicality. *European Journal of Social Psychology, 32,* 449-470.
Weiner, B. (1985). An attributional theory of achievement, motivation, and emotion. *Psychological Review, 4,* 548-573.
Weiner, B. (1986). *An attributional theory of motivation and emotion.* New York: Springer-Verlag.
Weiner, B. (1995*). Judgments of responsibility: A foundation for a theory of social conduct.* New York: Guilford.
Weiner, B., Russell, D., & Lerman, D. (1979). The cognition-emotion process in achievement-related contexts. *Journal of Personality and Social Psychology, 37,* 1211-1220.

Received August 29, 2006
Revision accepted April 4, 2007