

Volume 10, Number 10

Submitted: November 11, 2004

First Revision: January 3, 2005

Second Revision: February 2, 2005

Third Revision: February 19, 2005

Accepted: February 19, 2005

Published: February 19, 2005

### **A SOCIAL IDENTITY THREAT AND EXPERIENCED AFFECT: THE DISTINCT ROLES OF INTERGROUP ATTRIBUTIONS AND SOCIAL IDENTIFICATION**

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#### **ABSTRACT**

*I investigated the moderating role of ingroup identification on the relationship between the affective state experienced and the causal attributions made for social identity threatening outcomes of intergroup comparisons. For people under such conditions, on the basis of prior research, I expected that affect unpleasantness is positively correlated with attributions for outgroup merits to the extent that social identification is strong. Furthermore, I hypothesized that perceived legitimacy of the intergroup status differential mediates such a relationship. I found support for these predictions by providing psychology students with bogus research results concerning the lower academic achievements of their own group relative to medicine students. Combining the findings of two distinct literatures, the present study traces the sources of the affective processes that social identity threatening intergroup comparisons set in motion as a function of ingroup identification when people make ingroup relevant attributions.*

## **INTRODUCTION**

Perceived threat to social identity (Breakwell, 1986) is a construct that dates back to even research conducted by Sherif (cf. Costarelli, 2003). This psychological state follows from the acknowledgement that the ingroup compares negatively with a relevant comparison group (for reviews, see Branscombe, Ellemers, Spears, & Doosje, 1999; Ellemers, Spears, & Doosje, 2002). Seeking and maintaining a positive self concept determines how people value the social groups to which they hold membership (Tajfel & Turner, 1986). Hence, consistent with such motivational character of the social identity value principle (Tajfel & Turner, 1986), contrasting the performance levels of the ingroup with those of a relevant outgroup has self evaluative implications (cf. Goethals & Darley, 1987). This idea is consistent with research supporting the argument that social identity threatening intergroup comparisons can have affective consequences (for a review, see Brewer & Brown, 1998). Specifically, this work has shown that these are pleasant or unpleasant depending on whether comparison outcomes are relatively favorable or unfavorable for the ingroup, respectively (after Lang, Bradley, & Cuthbert, 1998).

Among others, Ouwerkerk and Ellemers (2002) have recently suggested that an underresearched issue in this area is the potentially important role played by causal attributions (Weiner, 1985, 1986). Accordingly, I designed the current study to investigate this issue. Unlike previous work on causal attribution processes in intergroup contexts (e.g., on the group-serving attributional bias; for a review, see Hewstone, 1990), a novel aspect of the present study is that I treat attributions as independent rather than dependent variables.

On the one hand, all group members are not equally likely to be motivated to maintain a relatively positive view of their own group (Brewer & Kramer, 1985; Turner, 1978). Research has pointed to the importance of ingroup identification as an input variable in this respect. Specifically, under relative value threatening intergroup comparisons, such a differential motivation to maintain a positive view of the ingroup as a function of ingroup identification has been found to elicit stronger unpleasant affect in higher ingroup identifiers than in lower identifiers (e.g., Ellemers, Kortekaas, & Ouwerkerk, 1999; McFarland & Buehler, 1995; Wann & Branscombe, 1993; for reviews, see Branscombe et al., 1999; Ellemers et al., 2002). Accordingly, attributions for relatively negative outcomes of intergroup comparisons should only evoke negative affective responses to the extent that one identifies with the ingroup (cf. Ellemers & Barreto, 2001). Based on these considerations, in the present work, I test the potential moderating role played by ingroup identification on the expected affective consequences of intergroup attributions under social identity threat.

On the other hand, social identity theory (Tajfel & Turner, 1986) predicts perceived legitimacy of intergroup status differences to be an important determinant of group-based emotions (for a review, see Ellemers & Barreto, 2001). Specifically, research has found the effects of acknowledging the lower status of the ingroup relative to a relevant comparison outgroup to be stronger when one views such status differential as being illegitimate, compared to when one considers it as being legitimate (e.g., Ellemers, Wilke, & Van Knippenberg, 1993; Kawakami & Dion, 1993). In this latter case, people views the intergroup status differential as reflecting social reality (i.e. actual differences in the standing of the groups on a relevant comparison dimension). Accordingly, I also predicted that following attributions for ingroup unfavorable outcomes of intergroup comparisons, perceived legitimacy of such a status differential would mediate the hypothesized positive relationship between causal attributions to outgroup merits and following unpleasant affect that should only be experienced at relatively higher levels of ingroup identification.

## **METHOD**

### **Overview and Participants**

Prior research on the consequences of intergroup threat has often made use of the traditionally intense rival relationship between psychology and medicine students (e.g., Cadinu & Reggiori, 2002). Based on this, in the present study, I operationalized intergroup threat by means of threatening bogus information. Specifically, its content regarded the relatively negative stereotype of psychology students (the current participant population), relative to medicine students as a comparison group. I measured ingroup identification before providing participants with the threatening bogus information. Next, causal attributions, perceived legitimacy of the intergroup status differential, and affective responses were assessed.

Participants were 36 psychology students (21 women, 17 men; mean age = 20.58) from the University of Trento, Italy. Preliminary analyses revealed no effects for participant gender on the variables of interest. As a consequence, I collapsed data across the gender variable.

### **Procedure and Measures**

After an introductory psychology lecture, I gave a questionnaire to fill out to students volunteering to participate in a national survey.

#### **Ingroup Identification**

In the questionnaire, I first asked participants to answer five seven-point item scales (1 = Not at all, 7 = Very much) as adapted from those developed by Cadinu and Reggiori (2002) to measure their level of identification with the social group of psychology students (see Appendix). For each participant, I subsequently calculated an ingroup identification index by averaging the scores on the five items.

## **Threat Induction**

Next, in the questionnaire, I presented participants with the results of bogus research allegedly conducted by a governmental agency to investigate issues related to the academic achievements of psychology students (the ingroup). Specifically, I informed participants that the general public in their native country considered medicine students (the outgroup) to be superior to psychology students on a range of academic performance dimensions (i.e. average exam grades, time taken to complete the degree, and dropout number). The content of such bogus information was rooted in social reality: Indeed, people stereotypically view medicine students as being more academic, and thus more competent, than psychology students (Cadinu & Reggiori, 2002).

## **Attributions**

I then assessed with respect to which target group participants made attributions for the ingroup unfavorable status. To this end, I asked participants to answer three items. They were: 1) 1 = The reasons behind the facts emerging from the data reported above have much more to do with the limits and faults of psychology students than with the merits and qualifications of medicine students, 7 = The reasons behind the facts emerging from the data reported above have much more to do with the merits and qualifications of medicine students than with the limits and faults of psychology students; 2) 1 = The data reported above mirror much more the limits and faults of psychology students than the merits and qualifications of medicine students, 7 = The data reported above mirror much more the merits and qualifications of medicine students than the limits and faults of psychology students; and 3) 1 = The data reported above stem much more from the limits and faults of psychology students than from the merits and qualifications of medicine students, 7 = The data reported above stem much more from the merits and qualifications of medicine students than from the limits and faults of psychology students. Based on the theoretical rationale underlying my first hypothesis (see Introduction), the predicted effects of acknowledging ingroup unfavorable outcomes of intergroup comparisons should be stronger when such outcomes are perceived as being rooted in outgroup superiority rather than in mere ingroup limitations. Accordingly, for each participant, I aggregated the scores on the above three items by averaging them such that higher scores on the aggregated measure reflect more outgroup (superiority) attributions for the ingroup unfavorable outcome of social identity threatening intergroup comparison.

## **Legitimacy**

I next assessed perceived legitimacy of the intergroup status differential. To this end, for each participant, I aggregated the scores on three seven-point item scales (1 = Not at all, 7 = Very much) by averaging them. The items were: 1) It is justified that medicine students have a higher prestige than psychology students; 2) It is not just that medicine students have a higher prestige than psychology students (reverse scored); and 3) Medicine students can legitimately lay claim to have a higher prestige than psychology students.

## Affective Responses

Then, I administered participants a series of seven-point positive and negative items scales (1 = Not at all, 7 = Very much) taken from the Positive Affect Negative Affect Schedule (PANAS: Watson, Clark, & Tellegen, 1988). The positive affect items were: active, enthusiastic, excited, inspired, interested, proud. The negative affect items were: tense, distressed, irritable, nervous, jittery. For each participant, I subsequently calculated a positive affect index and a negative affect index by averaging the scores on the respective items.

Finally, in the questionnaire, I asked participants to indicate their gender. After all participants had completed the questionnaire, I debriefed and thanked them.

## RESULTS

The current study involved only single mean contrasts. Accordingly, the probability of making a Type I error per contrast (experimentwise error rate) is the traditional alpha level 0.05 (cf. Kirk, 1995). Thus, after applying a Bonferroni correction factor to the reported t-tests by dividing the employed alpha level (0.05) by the maximum number of mean contrasts that are conducted (1) the experimentwise error rate is also 0.05. In preliminary analyses, I checked whether I could rule out the possibility that ingroup identification influenced causal attributions and legitimacy of the intergroup status differential. Indeed, correlational analysis showed that ingroup identification was not influential on these two variables,  $r_s < .20$ ,  $p_s > .29$ . I then constructed the multi-item measures as indicated earlier (see Method, Procedure and Measures).

A principal components analysis of the affective items taken from the PANAS scale replicated the two factor structure reported by the scale authors (Watson et al., 1988). Accordingly, I calculated separate measures of positive and negative affect. Consistent with the notion that positive and negative affect are independent dimensions (cf. Warr, Barter, & Brownbridge, 1983), the positive and negative affect measures were uncorrelated,  $r = .26$ ,  $p < .23$ . This provided the basis for the decision to conduct parallel analyses for both types of affective responses separately.

The descriptive results are in Table 1. As shown by the respective scale means, overall, both ingroup identification and negative affect are low. This may have been the case because characterizing the ingroup as people simply sharing with the participants the study major may not have had as strong an impact on the related social identity and affective psychological processes investigated in the current study as a different ingroup characterization would have. Despite this apparent effect size decreasing problem, I proceeded with hypothesis testing.

**Table 1 Means, Standard Deviations, and Cronbach Alpha for Study Variables**

	M	SD	Cronbach Alpha
Ingroup identification	3.82	0.99	.74
Attributions	3.85	0.81	.68
Legitimacy of intergroup status differential	3.84	0.37	.78
Positive affect	4.67	1.50	.84
Negative affect	1.36	0.97	.92

I expected that ingroup identification would moderate the impact of causal attributions upon reported affect. I assessed the moderating effects of ingroup identification using moderated hierarchical regression analysis. To this end, following the suggestion of Aiken and West (1991), I first computed mean centered scores for ingroup identification and outgroup attributions. Then I entered these scores into Step 1 of a hierarchical multiple regression model, and their interaction term into Step 2. I tested this model first with positive affect, and then with negative affect, as the dependent variable.

These analyses yielded only main effects of causal attributions on positive affect,  $t = -2.13$ ,  $p < .05$ . The more the participants attributed to the (merits of the) outgroup the ingroup unfavorable status, the less positive their following affect (Beta =  $-.40$ ). More important, I also found the expected interaction effect of ingroup identification and causal attributions on both positive affect ( $t = -2.60$ ,  $p < .05$ ) and negative affect ( $t = 2.15$ ,  $p < .05$ ). As the signs of the respective regression coefficients indicate (see Method, Procedure and Measures, Attributions) to the extent that both ingroup identification and outgroup attributions increased, subsequent experienced affect became less positive (Beta =  $-.64$ ) and more negative (Beta =  $.46$ ).

### Mediational Analysis

Further analyses tested the hypothesis that, following the attributions made for ingroup unfavorable outcomes of intergroup comparisons, to the extent that ingroup identification was stronger, perceived legitimacy of such a status differential should mediate the hypothesized relationship between experienced unpleasant affect and the outgroup attributions made for such a status differential. To this end, I used the procedure indicated by Baron and Kenny (1986). Because of the relatively small sample size, I conducted and then compared the results of two separate sets of mediational analyses, one for relatively lower ingroup identifiers and one for relatively higher identifiers. I identified these two groups by splitting the sample on the median of the ingroup identification measure ( $= 3.5$ ) in order to create lower ( $M = 3.03$ ) and higher ( $M = 4.62$ ) ingroup identification groups,  $F(1, 35) = 48.87$ ,  $p < .0001$ .

In the higher identification group, in line with predictions, to the extent that outgroup attributions for the ingroup unfavorable status were stronger, reported affect was less positive (Beta =  $-.58$ ,  $t = -2.36$ ,  $p < .05$ ) and more negative (Beta =  $.52$ ,  $t = 2.03$ ,  $p < .05$ ). Additionally, I found a significant effect of outgroup attributions (the predictor) on legitimacy (the mediator),  $t = 2.07$ ,  $p < .05$ . To the extent that outgroup attributions for the ingroup unfavorable status were stronger, higher ingroup identifiers perceived the outcome of such a status differential as being more legitimate (Beta =  $.50$ ). Concerning negative affect, when I controlled for legitimacy by entering it into the regression model, the path from legitimacy to negative affect was highly significant (Beta =  $.96$ ,  $t = 10.62$ ,  $p < .001$ ). However, the previously observed direct path from outgroup attributions to negative affect (as reported above) was no longer reliable (Beta =  $.04$ ,  $t = 0.40$ ,  $p > .70$ ). As regards positive affect, I found the path from legitimacy to positive affect to be nonsignificant ( $t = -0.04$ ,  $p > .97$ ). This null finding may be due to the fact that negative affect is more ego involving, compared with positive affect (Collins, 1996).

For relatively lower identifiers, the regression of causal attributions on legitimacy was not significant ( $Beta = .45$ ,  $t = 1.68$ ,  $p > .12$ ), and the respective paths from legitimacy to both positive and negative affect were not reliable either ( $ts < |1.66|$ ,  $ps > .13$ ).

## **DISCUSSION**

The present study explores the effects of intergroup causal attributions as moderated by ingroup identification on the affective states elicited by social identity threatening intergroup comparisons. For people under such conditions, on the basis of prior research, I expected that affect unpleasantness is positively correlated with attributions to outgroup merits but only to the extent that ingroup identification is strong. Furthermore, I predicted that perceived legitimacy of the status differential mediates such relationship. Overall, results involving two distinct measures of experienced affect revealed convergent support for the hypothesized pattern.

These findings are in line with other theoretical and empirical work. Concerning the attributional aspect of the presented evidence, on the theoretical level the current results validate previous construals of causal attributions as important moderators of the subjective experience of social life (e.g., Weiner, 1985, 1986, 1995). On the empirical level, these findings are consistent with evidence from prior work on the group serving attributional biases. This line of research has shown that such biases lead people to make external rather than internal attributions, but only to the extent that people perceive the acts of ingroup members as reflecting negatively on the ingroup as a whole (for a review, see Hewstone, 1990). In addition, the present findings are also in line with empirical work on the negative affective impact of attributions for relatively negative outcomes of interpersonal comparisons (e.g., McFarland & Ross, 1982; Miller & Ross, 1975; Weiner, Russell, & Lerman, 1979). Finally, the present finding that internal attributions for relatively negative outcomes of intergroup comparisons can elicit unpleasant affect is conceptually consistent with a particularly robust result found in the literature: The positive correlation between internal attributions made for the relatively negative performance of the ingroup and perceived legitimization of the resulting intergroup status differential (for a discussion, see Schmitt & Branscombe, 2002). As regards the presented evidence concerning the moderating role of ingroup identification on the relationship between attributional internality and unpleasant affect, these findings are consistent with previous research showing the broad range power of ingroup identification to moderate affective reactions to situations where the value of the ingroup is threatened (e.g., Costarelli & Palmonari, 2003; Costarelli & Callà, 2004; Costarelli, *in press*; for reviews, see Branscombe et al., 1999; Ellemers et al., 2002).

However, it is also important to note the aspects of difference of the current study from previous research. Specifically, I focused neither on the historical negative actions of ingroup members (e.g., Doosje & Branscombe, 2003) nor on the negative acts of individual ingroup members (e.g., Taylor & Jaggly, 1974). In contrast, the novelty of the current study is twofold. First, the present work focused on the attributions made for the stereotypically worse performance of the ingroup, compared to a relevant outgroup. Additionally, in this investigation, I considered attributions as independent rather than dependent variables as in prior research on intergroup attributions (for a review, see Hewstone, 1990).

Despite calls for more empirical work (e.g., Ouwerkerk and Ellemers, 2002; Hewstone, 1990), to date the potential role of causal attribution processes in intergroup relations has been relatively underresearched. To my knowledge, no prior work has demonstrated the affective consequences of ingroup identification as a moderator of the effects exerted by the locus of the cause dimension of intergroup attributions in social identity threatening contexts. Thus, taken together, the evidence I presented in this investigation is of some importance. First, the current finding that causal attributions for the ingroup stereotypically negative outcomes of social comparison in intergroup contexts are associated with unpleasant affect adds to the extant literature. Specifically, it does so by extending to the research area of intergroup relations previous individualistic evidence obtained in the area of the self (e.g., McFarland & Ross, 1982). Moreover, the moderating role of ingroup identification on such relationship between causal attributions at the group level and unpleasant affect also contributes to the literature. Specifically, it does so by further shedding light on the important psychological role played by ingroup identification for processes that take place in those contexts where social identity value is at stake.

Clearly, a major limitation of these findings is that they are based on a single condition study. Thus, one cannot rule out the possibility that the results may depend on the order of scale completion. In addition to orthogonally varying order of scale completion, future research should manipulate causal attributions as a stronger test of the pattern of results which I predicted and found in this study. An additional, notable limitation of this work is that I split the research sample on the median of the ingroup identification score to identify relatively lower and higher ingroup identifiers in spite of the fact that the ingroup identification score distribution was positively skewed: Thus, lower and higher identifiers were in fact rather somewhat lowly identified with the ingroup, as indicated by the sample median on the identification score (3.5) being below the respective scale midpoint (4). Given these non-normal score distributions, use of non-parametric statistics would have been more appropriate (although my finding statistically significant differences by using the more conservative, parametric tests actually argues for, rather than against, the tenability of the current findings). I therefore acknowledge that some inferences may have resulted from the methodology used rather than the underlying psychological processes. One should thus take with caution the current findings and further research should ascertain their empirical tenability.

A final note is in order as regards some promising avenues for follow up research on the processes that were investigated in the current study. Specifically, I would point at the potential role played by other key attributional dimensions. Indeed, attributional stability and controllability are very likely to moderate the processes shown in the current study: Both factors reflect the general acknowledgement of a given outcome of individual or group behavior as being rooted in social reality. Specifically, first, from the standpoint of individual group members attributional stability for outcomes of group behavior reflects a key perception in this latter processes: The degree to which group membership will affect own performance outcomes in the future. Consistent with this construal, research has shown that attributional stability is of critical importance for understanding the self relevant implications of attributions for the outcomes of relative group performance made by group members (e.g., Ellemers, Van Rijswijk, Roefs, & Simons, 1997; see also Schmitt & Branscombe, 2002).



Furthermore, concerning attributional controllability, it is important to underline that people are likely to view social group membership as a stable attribute: This is the case because the difficult enterprise of changing own standing on this attribute will require considerable time and energy (cf. Arnelsson & Smith, 2000). Efficacy based approaches to wellbeing view the latter state as importantly influenced by the perception of control over own outcomes (e.g., Bandura, 1997). Consistent with these theoretical perspectives, for experimental scenarios involving perceptions of the social status of the research participants, unpleasant affect should therefore be a very likely byproduct. Clearly, future investigations need explore the empirical tenability of all of these speculations.

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## **APPENDIX**

Ingroup Identification scale (adapted from Cadinu & Reggiori, 2002)

1. I feel like a member of the category of psychology students.
2. I am proud to be a psychology student.
3. I feel close to other psychology students.
4. I often think of myself as a psychology student.
5. Being a psychology student affects the way I am and how I think.

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