RUNNING HEAD: Collective guilt as a predictor of reparation
Nuestra Culpa: collective guilt and shame as predictors of reparation for historical
wrongdoing
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Key words: collective guilt, collective shame, reparation
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#### Abstract

Three studies examined the hypothesis that collective guilt and shame have different consequences for reparation. In two longitudinal studies, respondents were Non-Indigenous Chileans (Study 1: N = 124/120, lag 8 weeks; Study 2: N = 247/137, lag 6 months) and the outgroup was Chile's largest indigenous group, The Mapuche. In both studies, it was found that collective guilt predicted reparation attitudes longitudinally. Collective shame had only cross-sectional associations with reparation and no direct longitudinal effects. In Study 2, it moderated the longitudinal effects of collective guilt such that the effects of guilt were stronger for low shame respondents. In Study 3 (N = 193 Non-Indigenous Chileans), the cross-sectional relationships between guilt, shame and reparation attitudes were replicated. The relationship between shame and reparation attitudes was mediated by a desire to improve the ingroup's reputation.

Nuestra culpa: collective guilt and shame as predictors of reparation for historical wrongdoing

Historians of the second half of the twentieth century will doubtless come to record that it was marked by several violent intergroup conflicts around the globe. The wars in South East Asia, the long struggle against Apartheid in South Africa, the genocides in Rwanda and former Yugoslavia and the continuing struggles of indigenous peoples around the world for the restitution of their homelands and the preservation of their cultures are just a few of the many social conflicts that have cost millions of lives over the past fifty years. Whilst such a record of bloodshed is regrettably hardly a novel phenomenon, one feature of at least some of these conflicts is new and is attracting increasing attention from the social scientific community. That new aspect is the emergence of political debate about people's felt culpability for injustices perpetrated by their group in those conflicts in the past, and the extent to which some restitution should be made to the victims of those injustices in the form of public apologies, memorials or material reparations (Barkan, 2000; Buruma, 1994; Steele, 1990). That debate has stimulated theorizing and research in social psychology into the phenomenon of self-conscious emotions and their consequences for intergroup relations (Branscombe & Doosje, 2004; Leach, Snider & Iyer, 2002). In this paper we seek to make a contribution to this developing research area by examining the effects of experienced collective ingroup guilt and shame on the desire to make reparation to a "victim" outgroup. We do this in the naturalistic context of relations between the non-Indigenous majority and one of the Indigenous minority groups in Chile.

Reactions to wrongdoing: the distinction between guilt and shame

In the domain of interpersonal relations there has been much research into individuals' emotional reactions to the realization that they have done something in contravention of some relevant personal or normative standards (Tangney & Fischer, 1995). An important point of departure for this work was Lewis' (1971) distinction between the self-conscious emotions of guilt and shame. For Lewis, both of these reactions involve negative affect but the focus of the experience differs: in guilt the main emphasis is on the wrong-doing and its consequences for the other ("I did this bad thing to X, who suffered as a result"), whilst shame is marked more by a focus on the negative implications of that wrongdoing for one's self-concept ("I did this bad thing to X, and therefore I am (seen to be) a bad person"). Since both emotions are somewhat aversive, people are motivated to alleviate them. Lewis (1971) speculated that this alleviation would take different forms. Guilt, with its focus on the misdeed should be more likely to lead to some form of restitution to the victim (e.g., apology, reparation); shame, on the other hand, with its focus on the self, should lead to withdrawal from or avoidance of the situation that gave rise to it.

These ideas provoked considerable empirical research into the role of guilt and shame in interpersonal relations (e.g., Baumeister, Stillwell & Heatherton, 1994; Tangney & Fischer, 1995). Early on, it was recognized that lay usage of the words "guilt" and "shame" often treats them as synonyms (Shaver, Schwartz, Kirkson & O'Connor, 1987). Nevertheless, even if they are interchangeable in ordinary language use, there is growing consensus that, whilst positively correlated, the two emotions have a different underlying psychology and may sometimes lead to different outcomes. Shame generally seems to be a more intensely and aversively experienced emotion, associated with anger, wishing to hide

and self-oriented counter-factuals, while guilt has been observed to correlate more with empathy and action-oriented counterfactuals (Niedenthal, Tangney & Gavanski, 1994; Tangney, 1991; Tangney, Miller, Flicker and Barlow, 1996; Tangney, Wagner, Fletcher, & Gramzow, 1992). Notably, though, in view of Lewis' (1971) prediction, there is not always a greater tendency to repair associated with guilt than with shame (Roseman, West & Schwartz, 1994; Tangney et al., 1996).

One debated issue has been how to conceptualize shame. Some have followed Lewis' (1971) lead in regarding shame as the emotion that follows from a negative self-perception, the sense that one's character is flawed in some respect (e.g., Tangney, 1991). Others, though, link shame more to the damage to one's reputation that may be caused by the public exposure of one's misdeeds (Smith, Webster, Parrott & Eyre, 2002). Although these are subtly different conceptualizations of shame, it is likely that the two components are often closely intertwined. As Mead (1934) noted many years ago, one's reputation in the eyes of others is a major determinant of one's self-concept. However, while both accounts predict that shame should still lead to avoidance, it is possible to imagine circumstances in which a temporary coping strategy for dealing with the 'reputational' aspect of shame could be to make some kind of public form of restitution if, in so doing, one's public image could thereby be enhanced. Later in this paper, we will explore this idea empirically.

One other issue concerns the possibility of whether both guilt and shame can be experienced simultaneously, and whether they may interact. Lewis (1971, p. 42) suggested that both emotions can be felt at the same time and others have concurred with this (Tangney, 1991; Tangney et al., 1992). Tangney et al. (1992) also introduced the concept of "shame-free guilt" and "guilt-free shame", the idea that some individuals may be prone to experience guilt but little shame, or vice versa. Tangney et al. (1992) investigated this

using partial correlations among their personality measures of guilt and shame (e.g., guiltproneness controlling for shame-proneness); an alternative approach could have been to
explore whether they interact. In other words, does guilt have stronger associations with
reparative tendencies for those who show little shame? If shame has generally avoidance
consequences on social relations, it seems plausible to suppose that at high levels it might
thereby 'inhibit' the predicted prosocial consequences of guilt, thus suppressing the
positive link between guilt and reparation. We will return to this issue later.

In summary, then, there is some evidence that when people perceive themselves to have behaved illegitimately, they can experience guilt or shame (or both) and that, depending on which predominates, rather different outcomes can occur. Although the evidence is not unequivocal, guilt seems to be more closely connected to prosocial orientations, shame to stronger negative self-evaluations, reputational concerns and various kinds of avoidance behaviour.

Collective guilt and collective shame: conceptual issues

The discussion above was concerned with the reactions of individuals to the knowledge that they themselves have transgressed in some way, usually towards another individual. However, emotions are not restricted to such interpersonal situations. They can also be felt in response to other people's misdeeds, particularly if there is some psychological connection with those others, for example if they belong to the same group (Smith, 1993). Furthermore, the victims of those misdeeds may be whole categories of people and not just isolated individuals. In short, guilt and shame can have a collective component.

The first social psychological study of collective guilt was by Doosje, Branscombe, Spears and Manstead (1998). Drawing on social identity and self categorization theories (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher & Wetherell, 1987), they proposed

that, since group memberships and their associated category attributes can become internalized into an individual's self-concept, it was plausible to assume that the actions of other ingroup members would have affective implications for that individual. Just as the glorious exploits of some members of our ingroup can lead to others of us to bask in reflected glory (Cialdini et al., 1976), so too might the immoral actions of other ingroup members generate feelings in us of "vicarious" remorse or regret (Lickel, Schmader, Curtis, Scarnier & Ames, 2005) – cringing in shared blame, as it were.

Subsequent theorizing has sought to explicate these self-conscious collective emotions. Following Weiner (1995), Leach et al. (2002) and Branscombe, Slugoski and Kappen (2004) argue that collective guilt arises mainly when group members perceive that they have some responsibility for their ingroup's misdeeds or the subsequent repercussions of those misdeeds. In common with the work reviewed in the previous section, most commentators agree that collective guilt should lead ingroup members to want to make reparation to the outgroup (Branscombe et al., 2004; Lickel, Schmader & Barquissau, 2004).

In contrast, collective shame is thought more likely to be invoked when people do not feel in control of their (ingroup's) actions and when the ingroup is exposed as being weak or incompetent (Branscombe et al., 2004; Lickel et al., 2004). Conceptualizations of collective shame contain the same duality that we noted in discussing individual shame. So, Branscombe et al. (2004) emphasise the reputational aspect: "collective shame involves being publicly exposed as incompetent, not being in control, weak and potentially even disgusting *in the eyes of others*" (p.29, emphasis in the original). Lickel et al. (2004) add the idea of shame being associated with some negative ingroup "essence" (Haslam, Rothschild & Ernst, 2000; Yzerbyt, Rocher & Schadron, 1997): "collective shame stems from perceiving that the actions of the ingroup confirm or reveal a flawed aspect of one's

social identity....(and) ....implicate something about the very nature of who they are" (pp. 42-43). As in the case of individual emotions, it seems likely that the negative essence and the reputational components of shame will often elide into each other. Moreover, both viewpoints predict that collective shame, because of the implied threat to the ingroup's image, should lead to avoidance of the events that gave rise to the feelings in the first place, or even to hostility towards the outgroup. In sum, there is some consensus that the primary antecedent of action tendencies towards reparation should be collective guilt, rather than collective shame.

We do not dissent from this hypothesis, especially as it concerns durable consequences of these two dysphoric emotions. However, we believe that in the *short term* both collective guilt and shame can have rather similar and positive associations with reparation attitudes. One reason for this lies in the "reputational" aspect of shame. Insofar as ingroup members can see an immediate possibility for improving their group's image in the eyes of others, then an expedient strategy for alleviating shame could also be to be seen to endorsing restitutive policies. Over time, though, we suspect that there are more likely to be more opportunities to 'deny' feelings and cognitions about the shame-inducing situation, with a consequent reduction in tendencies to repair.

What has also not been investigated hitherto, either theoretically or empirically, is whether the emotions of collective guilt and shame might interact. As noted earlier, it is plausible to suppose that group members could feel both emotions simultaneously – certainly, they are usually correlated positively in the interpersonal domain (Shaver et al., 1987; Tangney, 1991). If so, what might be the consequences of feeling guilt with or without shame? Given the above argument, it is possible to predict that a relatively high level of shame, with its likely "avoidance" implications, might inhibit the "normal" prosocial consequences of guilt. Thus, an optimal situation, at least from the perspective of

promoting positive intergroup outcomes, should be a combination of relatively high levels of guilt coupled with relatively low levels of shame.

Collective guilt and collective shame: prior research

What empirical research has investigated collective guilt and shame? We focus first on attempts to measure the two concepts. Then we discuss research that has examined the consequences of collective guilt and shame for intergroup attitudes generally, and for a desire to make restitution to the outgroup in particular.

One widely used measure of collective guilt was published by Branscombe et al. (2004). This consists of five items, four of which refer to expressions of regret or guilt over the ingroup's negative actions towards other groups, and one of which refers to a desire to make reparation for any damage caused (see also, Roccas, Klar & Liviatan, 2004). Collective shame is not assessed by this measure. Although variants of this measures have proved useful in several different intergroup contexts (e.g., Doosje et al., 1998; Pedersen, Beven, Walker & Griffiths, 2004), we believe it is preferable not to include desire to make reparation in the measure of guilt itself since this is hypothesised to be a *consequence* of guilt rather than an integral component of it. It also precludes a study of the circumstances, if any, under which shame might predict reparation. Swim and Miller (1999) kept separate their collective guilt scale from their measure of reparation but, again, their scale did not measure collective shame. One study, which did attempt to measure both emotions, was by Lickel et al. (2005). Participants were asked to recall an event in which they felt guilty or ashamed for the actions of someone else (e.g., family member, ethnic ingroup member) and then to record the emotions that this event evoked. The emotion words "guilty", "regret" and "remorse" tended to load together on the same factor and distinctly from the words "ashamed", "embarrassed", "disgraced" and "humiliated". Iyer, Schmader and Lickel (2007) used a similar technique. However, Iyer, Leach and Crosby (2003) found that

ratings of emotions felt when thinking about racial discrimination did not separate so clearly into guilt and shame factors. Instead, emotions like "guilty", "ashamed", "regretful" and "blameworthy" tended to load together into what Iyer et al. (2003) labelled a "guilt" factor, whilst "sympathetic", "compassionate" and "empathetic" loaded together into a "sympathy" factor (see also, Leach, Iyer & Pederson, 2006).

Probably, this inconsistency across studies reflects the ambiguity in lay usage of the terms guilt and shame and more theoretically grounded items are needed to distinguish the two concepts. In any event, most existing measures have not attempted or been able clearly to differentiate collective shame from collective guilt, and some measures of collective guilt conflate guilt and reparation tendencies. In the studies presented in this paper, we report on our efforts to develop distinct and reliable measures for collective guilt and shame and then assess the unique ability of each to predict desire to make reparation to an outgroup.

Leaving aside the question of measures used, research has consistently found reliable associations between collective guilt and indicators of intergroup reparation.

Doosje et al. (1998, Study 2) presented Dutch student participants with brief historical accounts of the Dutch colonial treatment of Indonesia. Despite the fact that this sample of student participants could have had no direct involvement with their country's past imperialist misadventures, they still reported moderate levels of guilt and desire to make compensation, and these two measures were positively correlated.

Most other work in this domain has relied on cross-sectional correlational designs and has investigated only collective guilt. Swim and Miller (1999) found that white guilt consistently predicted reparation to African Americans in the form of favourable attitudes towards affirmative action policies, and less prejudice towards African Americans. This was confirmed by Iyer et al. (2003) who also found that guilt was only reliably associated

with what they called "compensatory" forms of affirmative action (e.g., special entrance quotas to university, positive job discrimination), and not with equal opportunities policies (e.g., increased efforts to attract more minority applicants to job openings). Elsewhere, McGarty et al. (2005) found that collective guilt felt by Non-Indigenous Australians about the treatment of Indigenous Australians was associated with support for official government apologies to the Indigenous community.

To date, little work has attempted to disentangle the potentially divergent intergroup consequences of collective guilt and collective shame. Harvey and Oswald (2000) attempted to induce guilt and shame experimentally in White Americans. However, their manipulation had similar effects on both emotions, and the latter showed similar relationships to the main dependent measure, support for Black Programs. Lickel et al. (2005) studied the vicarious emotions aroused by a recollection of the misdeeds of friends, family members or ethnic groups. In line with Lickel at al.'s (2004) model, whilst shame and guilt were positively correlated with each other, the former emotion was correlated with motives to distance themselves from the perpetrator or the situation, the latter was correlated with motives to apologize and repair. More recently, however, Brown and Čehajić (2006) report two cross-sectional studies in former Yugoslavia in which both collective guilt and shame were positively related to reparation attitudes.

In some recent research set in the context of the current Iraq war, Iyer et al. (2007) examined correlates of action intentions to compensate the Iraqi people for damage caused by the invasion. They found that neither of their measures of general guilt or shame (about the situation in Iraq) predicted compensatory attitudes once anger (about the same situation) was controlled. In fact, in both studies Iyer et al. (2007) found the latter emotion to be the most potent correlate of compensation intentions. Leach et al. (2006) also examined the roles of guilt and anger in the context of political action in Australia over the

plight of Aboriginal people there. Although they found that collective guilt was associated with compensation attitudes even when controlling for anger, anger proved a stronger predictor of actual willingness to act to effect that compensation. In Study 3 we will examine this possible role of anger in guilt and shame arousing contexts.

In summary, then, several studies have shown that collective guilt is associated with tendencies to apologize and make restitution to the outgroup. With three exceptions (Doosje et al., 1998; Harvey & Oswald, 2000; Iyer et al, 2003, Study 2), these have relied on cross-sectional correlational data with all the usual interpretative difficulties about causation that that implies. Little research has sought to investigate the consequences of both collective guilt and collective shame in the same study. Such an omission is surprising in view of the clearly divergent predictions about the effects of guilt and shame that have been made. In the first two studies presented here, we looked to fill these lacunae by conducting longitudinal research into the effects of collective guilt and collective shame on reparation. By measuring both independent and dependent variables at two points in time, some inferences of causality are possible (Bijleveld & Van der Kamp, 1998; Cook & Campbell, 1979; Finkel, 1995). The research was set in the context of the relationship between Indigenous and Non-Indigenous groups in Chile, a hitherto under-researched locale in social psychology and one that is especially appropriate for studying the effects of the particular group-based emotions with which we are concerned in this paper.

### Chilean research context

Chile consists of a majority of Non-Indigenous Chileans (around 16 million) and several Indigenous groups, of which the largest and culturally most significant is the Mapuche (around 0.8 million). The Mapuche have fought against invasions of their territory for over three centuries and were finally defeated only in the late 19<sup>th</sup> century. Since then, the Mapuche have suffered further infringements of their land rights,

suppression of their culture (e.g. their language was outlawed under Pinochet's military regime, 1973-1989), and from severe economic and social deprivation. Recently they have become more active in protest about their conditions, sometimes culminating in violent clashes with agents of the state or private employers. Non-Indigenous Chileans have rather ambivalent feelings towards the Mapuche (Saiz, 2002). On the one hand, the Mapuche are characterized – e.g. in school books – as brave and fearless warriors, a part of the 'founding myth' of the Chilean nation, and, as such, a source of pride for Non-Indigenous Chileans. On the other hand, Mapuche unemployment and alcoholism rates are disproportionally higher than for other groups in Chile, which makes them a ready target of negative attitudes from the majority. Furthermore, in recent years there has been a public debate about Non-Indigenous people's group-based culpability and responsibility for treatment of the Mapuche in the past, and the possible need for reparations. This debate has been translated into official state action, with the Chilean government establishing a body for the improvement of the Mapuche's situation (Instituto Nacional de Estadística, 2002; Ministerio de Planificación y Cooperación, 2003). Thus, issues of group-based guilt, shame, responsibility and reparations are likely to be quite salient in Non-Indigenous people's minds when thinking about the Mapuche.

## Hypotheses

We are now in a position to develop our principal hypotheses. The *first* hypothesis (H1) is that feelings of collective guilt held by Non-Indigenous Chileans over the historical mistreatment of the Mapuche will be causally related to attitudes in favour of making reparations to the Mapuche. This implies that prior feelings of guilt will longitudinally predict reparation attitudes.

Turning now to the possible effects of collective shame: theoretically, as we have seen, shame should be less strongly and less durably related to reparation. It is possible that

in the short-term there may be a positive association with reparation attitudes, but we hypothesize that this will not translate into a longitudinal causal relationship because of its essential ingroup-focus. Instead, as argued earlier, we believe that it could interact with collective guilt to inhibit the latter's usual prosocial consequences. Thus, the *second* hypothesis (H2) proposes a moderation of the guilt-reparation relationship by shame, such that high shame respondents will show a weaker relationship between guilt and reparation than low shame respondents.

## Study 1

### Method

## **Participants**

One hundred and twenty-four Non-Indigenous secondary school students from the Temuco region in Chile participated in the survey (55 male, 69 female. Mean age 15.47 years). For 120 of these participants, data were collected at two points in time with a time lag of approximately 8 weeks.

## Procedure and Measures

Data were collected in Temuco, a city several hundred kilometres to the south of Santiago in an area in which the proportion of the Mapuche population is very large. All participants filled out a questionnaire in Spanish during school class time, which contained the measures of the independent and dependent variables as translated below. The questionnaires distributed at both points in time were virtually identical. Participation was voluntary and took place with parental and student written consent. At the conclusion of the study all participants were debriefed.

Collective guilt and shame. Collective guilt was measured by asking participants how much they agreed (or disagreed) with four statements concerning the Non-Indigenous people's current or historical treatment of the Mapuche (see Table 1). Collective shame

was measured by inviting agreement (or disagreement) with three statements which attributed the cause of the Non-Indigenous group's mistreatment of the Mapuche to some internal factor (see Table 1). Preliminary factor analysis of these seven items (with the principal axis method of extraction) with a larger (N = 359) but equivalent sample<sup>2</sup> of Non-Indigenous students at T1 confirmed that the guilt and shame items did, indeed, load on separate, if correlated (r = .41), factors. In the obtained solution with oblimin rotation, the four guilt items all loaded on the first factor (loadings .57 - .91) but not on the second (loadings < .30), and the three shame items loaded on the second factor (loadings .47 - .89), and not on the first (< .30). The two resulting scales had adequate internal reliabilities ( $\alpha s = .77$  and .67 for guilt and shame, respectively).

*Reparation*. Desire to make reparation to the Mapuche was measured with five items which addressed issues of providing restitution to the Mapuche or reducing their social exclusion (see Table 1). This scale had satisfactory internal reliability ( $\alpha = .75$ ).

Prejudice towards the Mapuche. It was felt important to control for participants' initial attitudes towards the Mapuche in view of previous research indicating correlation between guilt and prejudice (Swim & Miller, 1999) and between prejudice and compensatory attitudes (Leach, Iyer & Pederson, 2006). Therefore, a prejudice measure was also included. This measure consisted of nine items taken or adapted from racism measures used in other contexts (e.g. Lepore & Brown, 1997; Pettigrew & Meertens, 1995) (see Table 1). This scale had good reliability ( $\alpha$  = .81). One reviewer suggested that this prejudice scale might be empirically indistinguishable from our measure of collective shame. In fact, this proved not to be the case. A factor analysis of the shame and prejudice items (principal axis method of extraction with oblimin rotation) confirmed that the shame items loaded together on the same factor (loadings .49 to .70) and not on either of the two factors that comprised the prejudice scale (all cross loadings < .30). And the Shame factor

was correlated only weakly with the two Prejudice factors (-.20 and -.28) which were themselves moderately correlated with each other (+.47). Moreover, in the matched sample that was used for the main analyses, Shame and Prejudice were again only weakly correlated (see Table 2). It seems clear, then, that Shame and Prejudice were indeed clearly separable constructs.

All the above items used a five point response format (1 = completely agree, 5 = completely disagree) and recoded so that a high score indicates a high value of the construct in question. In addition, various demographic details (e.g., age, sex) of participants were recorded.

### Results

We present the findings in three sections. First, we present the results from cross-sectional analyses of the Time 1 (T1) and Time (T2) samples, considered separately. This shows the pattern of contemporaneous associations among our primary variables. In the second section we present the results of the longitudinal analyses in which we sought to establish the power of collective guilt (and shame) to be able to predict reparation attitudes at Time 2 (T2) as predicted by H1, and also to test the moderation hypothesis (H2). Finally, as in any cross-lagged panel design, we explored the possible existence of "reverse" or circular causal processes – namely, that prior reparation attitudes might influence subsequent feelings of collective guilt and shame.

## Cross-sectional analyses

The means and inter-correlations of the principal measures are presented in Table 2. From that table it can be seen that respondents showed moderate levels of reparation, guilt and shame (all around the mid point of the scale), and rather low levels of prejudice towards the Mapuche. From the upper right quadrant of the table it can be seen that, as

expected, collective guilt and shame are positively correlated with each other and both are positively associated with reparation attitudes.

To examine their independent associations at T1, we regressed reparation attitudes onto guilt and shame, and, in a subsequent step, the interaction term between these predictors. The main predictors were centered prior to analysis. To be sure that these were relatively "clean" estimates of the links between collective guilt, collective shame and reparation, we first controlled respondents' age and level of prejudice. This multiple regression explained a reasonable amount of the variance ( $R^2 = .48$ , F(5,118) = 21.74, p < .001) in which the only reliable predictors were Guilt ( $\beta = .34$ , p < .001) and Shame ( $\beta = .40$ , p < .001). Thus, both guilt and shame were positively associated with reparation attitudes in this cross-sectional analysis. Contrary to H2, the interaction term was not reliable ( $\beta = .05$ , p < .50).

At T2 the same regression analysis produced a very similar outcome:  $R^2 = .55$ , F(5,115) = 28.12, p < .001. Once again, both Guilt and Shame were reliable and positive predictors of

At 12 the same regression analysis produced a very similar outcome:  $R^2 = .55$ , F(5,115) = 28.12, p < .001. Once again, both Guilt and Shame were reliable and positive predictors of Reparation attitudes,  $\beta = .47$  and .29 respectively, both ps < .001. At this time point Prejudice was also a reliable correlate of Reparation attitudes,  $\beta = -.20$ , p < .01. The interaction between Guilt and Shame was again non-significant,  $\beta = -.03$ , p < .70. Longitudinal analysis

Inspection of the left hand columns of Table 2 reveals very little change in the mean levels of the variables. In fact, only Shame showed a significant reduction over time, F(1,120) = 5.21, p < .05. Still, changes in mean levels are not very informative for testing our hypotheses about the longitudinal influence of guilt and shame on reparation. To examine this, we regressed T2 Reparation on T1 Guilt, Shame, and their interaction term, whilst controlling for initial levels of Reparation (Bijleveld & Van der Kamp, 1998; Finkel, 1995). As before, age and initial prejudice levels were added as controls.

This longitudinal analysis also explained a respectable proportion of the variance in the criterion measure ( $R^2$  = .37, F(6,114) = 11.19, p < .001). There were just two significant effects. Unsurprisingly, the test-retest association for Reparation was significant ( $\beta$  = .43, p < .001). The only other effect was for Guilt which was, as predicted by H1, a positive predictor of T2 Reparation attitudes ( $\beta$  = .20, p < .05). In contrast, the main effect for Shame was far from being significant ( $\beta$  = .03, p < .80). Contrary to H2, there was no significant interaction between Guilt and Shame ( $\beta$  = .12, p < .20).

#### Reverse causal direction

As we have just seen, there is evidence that collective guilt does indeed have a causal relationship in predicting reparation attitudes. However, it is possible that a circular relationship exists such that prior reparation attitudes might have an influence on subsequent levels of guilt. To examine this possibility, we reversed the logic of the longitudinal analysis in the previous section. This time we regressed T2 Guilt on T1 Reparation attitudes and Shame, whilst controlling for T1 values of Guilt. As before, age and prejudice level were added as controls. This analysis also accounted for respectable amounts of variance in the dependent measure ( $R^2 = .42$ , F(5,115) = 16.91, p < .001). There were three significant effects: trivially, T1 Guilt was a strong predictor ( $\beta = .58$ , p < .001); T1 Reparation also predicted T2 Guilt ( $\beta = .35$ , p < .001); as did Shame ( $\beta = .24$ , p < .02). A parallel analysis regressing T2 Shame on T1 values of the other variables also yielded a good fit ( $R^2 = .33$ , F(5,115) = 11.26, p < .001). In this analysis, the test-retest association of Shame was reliable ( $\beta = .40$ , p < .001), as were the associations with T1 Reparation ( $\beta = .27$ , p < .02) and Prejudice ( $\beta = .22$ , p < .01).

## Discussion

There are several noteworthy features of this study. First, as predicted by Hypothesis 1, collective guilt did indeed have a longitudinal effect on reparation attitudes.

Because our analysis controlled for initial levels of reparation (Finkel, 1995), there is some basis for inferring a causal relationship between guilt and reparation. To our knowledge, this is the first time that this has been demonstrated longitudinally in a field setting although, of course, several other cross-sectional studies have found similar results (Iyer et al., 2003; McGarty et al., 2005; Swim & Miller, 1999). Second, collective shame appeared to have no direct causal link to reparation attitudes since the β value in the longitudinal analysis was effectively zero. This stands in stark contrast to the longitudinal effect of guilt. However, the collective shame measure cannot be dismissed as simply an unreliable or impotent variable since it *was* a significant predictor of reparation attitudes in both the T1 and T2 cross-sectional analyses. Thus, in the short-term it appears that collective shame can be "alleviated" in the same way as collective guilt, by increasing endorsement of reparation attitudes. Its longer term effects are rather different however.

That said, there were some unexpected findings. First, it was interesting that there seemed to be some "circular causality" at work since initial reparation attitudes also predicted subsequent guilt and shame. In retrospect, this may not be so surprising. This study may have been one of the first formal opportunities that these adolescent Non-Indigenous Chileans had been questioned about their group's potential culpability for the historical treatment of the Mapuche, and what might be done about that. It is not implausible to imagine that having to answer questions about whether the Chilean Government should apologize and make restitution to the Mapuche might have instigated individual and social rumination about the ingroup's collective guilt. Given the relatively short time lag of this study (8 weeks), the more they thought about and endorsed reparation attitudes initially, the greater could have been their feelings of collective guilt and shame later on. It is an interesting question whether such "circular causal" effects would still be visible over a longer time period.

A second issue concerns the absence of any moderation of the longitudinal effects of guilt on reparation by shame, as predicted by Hypothesis 2. Apart from the inherent statistical difficulty in detecting interactions in correlational designs (McClelland & Judd, 1993), the substantive reason for this is not clear although, again, we speculate that it may have to do with the relatively short time span of this longitudinal design. As we saw, contemporaneously, shame had a positive association with reparation. It is possible that this positive association "persisted" long enough for the predicted "inhibition" effect on guilt not to manifest itself, but not long enough to produce any reliable longitudinal effect for shame per se. In a second study we examine this possibility by introducing a much longer time lag.

# Study 2

Study 2 was a close replication of Study 1, with one critical difference. Instead of the relatively short time lag of 8 weeks, we wanted to see whether the longitudinal effects of guilt on reparation would persist for a much longer period – 6 months. If this was the case, this would have important theoretical implications because it would provide evidence for the robustness of the consequences of collective guilt. In addition, we sought to reexamine the hypothesized "inhibitory" consequences of shame over this same longer time period.

### Method

## **Participants**

Two hundred and forty seven non-Indigenous secondary school students from the Temuco area participated in the T1 data collection (119 male, 127 female, 1 unspecified; mean age 16.02 years). Of these, 137 also participated at T2, approximately six months later. This relatively heavy attrition rate was due partly to the more ambitious time lag, but also because the two data collection points straddled the end and beginning of the academic

year in Chile with consequent loss of students due to administrative reasons (e.g., some students changing schools or repeating the year). Nevertheless, as we report below, the complete panel sample did not seem to differ much from the respondents who dropped out after T1, thus giving us some confidence it was reasonably representative of the original sample.

### Procedure and measures

The procedure and measures were identical to Study 1. The measures all had adequate or good internal reliabilities: collective guilt ( $\alpha = .79$ ), collective shame ( $\alpha = .64$ ), reparation ( $\alpha = .72$ ) and prejudice ( $\alpha = .76$ ). As in Study 1, preliminary factor analysis (principal axis method of extraction) with another larger (N = 376) but equivalent sample of Non-Indigenous participants confirmed the distinctiveness of our collective guilt and shame measures. Factor analysis with oblimin rotation produced the same two factor solution as in Study 1, with guilt items loading on factor 1 (.58 - .89) but not on factor 2 (<.30), while shame items loaded on factor 2 (.69 - .86) but not on factor 1 (< .30). The correlation between the factors was .45. We again checked on the separability of the Shame and Prejudice measures. A factor analysis of the shame and prejudice items (principal axis method of extraction with oblimin rotation) showed that the shame items loaded together on the same factor (loadings .52 to .77) and not on either of the two factors that comprised the prejudice scale (all cross loadings < .30). The Shame factor was correlated only weakly with the two Prejudice factors (-.23 and -.23) which were themselves moderately intercorrelated (+.44). In the matched sample that was used for the main analyses, Shame and Prejudice were only weakly associated (see Table 3). Once again, it is apparent that Shame and Prejudice were clearly separable constructs.

#### Results

The results will be presented in four sections. First, we report on the effects of the panel attrition. Then we report cross-sectional analyses from T1 and T2. Then we report on the main longitudinal analysis in which H1 and H2 are tested. Finally, we check on any "reverse causal" links.

#### Panel attrition

To assess the representativeness of our full panel sample (with data at both time points), we compared this sample to those for whom we had data only at T1. One-way ANOVAs on all the measures revealed no significant differences between the full longitudinal sample and those who 'dropped out' after T1. In only one respect did the two samples differ: in the longitudinal sample there was a slightly lower proportion of males than in the T1 only sample (43% vs. 55%,  $\chi^2 = 3.99$ , p < .05). This minor difference aside, it seems safe to assume that the full panel was reasonably representative of the original sample.

## Cross-sectional analysis at T1 and T2

Means and inter-correlations of the main variables are shown in Table 3. From there, it can be seen that the mean levels of reparation, guilt, shame and prejudice were all very comparable to Study 1. From the upper right quadrant of the table it can be seen that, as previously, collective guilt and shame were positively correlated with each other and both positively associated with reparation attitudes.

To examine their independent associations at T1, we once again regressed Reparation attitudes onto Guilt and Shame and, in a further step, the two-way interaction between them. As before, we first controlled respondents' age and level of prejudice and centered the main predictors. The final regression model accounted for a reasonable proportion of the observed variance ( $R^2 = .43$ , F(5,231) = 35.22, p < .001). Mirroring the results from Study 1, the only reliable predictors were Guilt ( $\beta = .41$ , p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ), p < .001), Shame ( $\beta = .41$ ),  $\beta = .41$ ,  $\beta = .41$ ,

.24, p < .001) and the "control" variable Prejudice level ( $\beta = -.35$ , p < .001). Thus, both guilt and shame were positively associated with reparation attitudes in this cross-sectional analysis. The interaction term was not reliable (( $\beta = -.02$ , p < .70).

The same regressions at T2 produced a similar outcome:  $R^2$  = .40, F(5,126) = 16.97, p < .001. As before, both Guilt and Shame were reliable predictors of Reparation attitudes,  $\beta$  = .40 and .23 respectively, ps < .001 and .01. Prejudice was also a reliable correlate of Reparation attitudes,  $\beta$  = -.34, p < .001. The interaction between Guilt and Shame was again non-significant,  $\beta$  = -.07, p < .40.

# Longitudinal analysis

Inspection of the T1 and T2 means in Table 3 reveals that there was little change in mean levels of the variables over time. The only significant change was for Shame, F(1,136) = 4.14, p < .05. To test our hypotheses, Reparation attitudes at T2 were regressed onto T1 values of Guilt, Shame, their interaction term, and age and prejudice level, controlling for initial Reparation attitudes. This regression model accounted for an adequate proportion of the variance ( $R^2 = .24$ , F(6,126) = 6.68, p < .001). Apart from the test-retest value for Reparation ( $\beta = .38$ , p < .001), the only significant effects were the hypothesized (H1) main effect for Guilt ( $\beta = .22$ , p < .04) and the hypothesized (H2) Guilt X Shame interaction ( $\beta = -.20$ , p < .02). The coefficient for Shame was far from being significant,  $\beta = .07$ , p < .50. Following Aiken and West's (1991) suggestion, the Guilt X Shame interaction was plotted applying the regression equation to a combination of two values of Guilt and Shame (1 SD below the mean and 1 SD above the mean, labelled "Low" and "High", respectively), the results, which are presented in Figure 1, indicate that the longitudinal effect of guilt on reparation increases at lower levels of shame, as predicted by H2.

Reverse causal direction

Confirming Study 1 and supporting Hypothesis 1, collective guilt appeared to be causally related to reparation attitudes. What about the opposite pathway over this longer time period? As before, we regressed T2 Guilt on T1 Reparation attitudes and Shame, whilst controlling for T1 values of Guilt (age and prejudice level again included as controls). This analysis also accounted for variance in the dependent measure ( $R^2 = .23$ , F(5,127) = 7.50, p < .001). However, there was only one reliable beta coefficient, the unsurprising test-retest value for Guilt ( $\beta = .48$ , p < .001). All other coefficients were far from being significant (all ps > .10). A parallel analysis regressing T2 Shame on T1 values of the other variables also yielded a significant overall regression equation ( $R^2 = .27$ , F(5,127) = 9.29, p < .001) and, again, only the test-retest association of Shame was reliable ( $\beta = .45$ , p < .001). All other coefficients were non-significant (all ps > .11). Thus, in this study there was little evidence of "circular causality" from initial reparation to later feelings of guilt or shame.

## Discussion

This study provided a striking confirmation of our hypotheses. First, despite the threefold increase in time lag, guilt was still significantly predictive of later reparation attitudes, even when controlling for initial reparation attitudes. This supports Hypothesis 1. Second, and supporting Hypothesis 2, this direct link was now moderated by collective shame such that it held reliably only for those respondents reporting low initial levels of collective shame. For High shame participants, the otherwise positive consequences of guilt seem to have been suppressed, suggesting that, as we had suspected from the outset, that collective guilt and shame have rather different consequences for people's desire to make restitution for their ingroup's past misdeeds.

The effects of collective shame observed in Study 1 were also mirrored here. As there, it proved to have little direct long-term effect on reparation attitudes. Its only reliable and independent association was in the cross-sectional analyses. A possible explanation for this correlation is that it reflects the genuine, if short-term, consequence of feeling collectively shameful about the ingroup's misdeeds. As we speculated earlier, it is possible that shame might be temporarily alleviated by attempting to "repair", but only temporarily because of the underlying negative attribution that shame implies. Such an attribution means that longer term relief is more likely to be gained from avoidance strategies. Hence, the "inhibition" of the longitudinal guilt-reparation relationship for high shame people.

If Study 2 largely confirmed Study 1, there was one important difference in the pattern of results observed. This concerned the absence of any "reverse" path between reparation and guilt here as compared to Study 1. Here, the difference in time lags between the two studies also seems a plausible explanation for the inconsistency. The argument advanced earlier for the reparation-guilt causal link was that being asked to reflect on reparation issues at T1 might have instigated increased feelings of guilt in the minds of the non-Indigenous participants. Such a reflexive process may have been less likely over the six month duration of the second study, especially since that time gap also involved changes in school classes and likely other significant events in the lives of our adolescent participants. If the apparently unidirectional causal link that we observed in Study 2 is confirmed in further research over longer periods, this would add strength to the reasoning behind the hypothesis that predicted it.

Finally, we acknowledge the undesirably high attrition rate and the consequent loss of statistical power in our longitudinal analyses. Although we had designed the study to be substantially larger, for administrative and other reasons outside our control we did lose many more participants than we had wished. Still, despite the attrition, it seems that the full

panel sample did not differ substantially from the originally conceived one, and the findings it yielded were reasonably clear-cut.

## Study 3

In Studies 1 and 2 we have shown that guilt, but not shame, has reliable longitudinal main effects on reparation attitudes. This was entirely consistent with theoretical expectations. Somewhat less expected, though, were the equally reliable *cross-sectional* positive correlations between collective shame and reparation attitudes. In this third study we investigate what might be underlying those associations. Whilst doing so, we will also take the opportunity to refine our key measures in order to improve their validity and internal reliability.

Earlier it was noted how conceptualizations of collective shame have included two aspects. One stresses the perception of some negative ingroup "essence" that might be to blame for the immoral actions by ingroup members (Lickel et al., 2004); the other focuses more on how the public reputation of the ingroup might have been damaged by those same reprehensible deeds of its members (Branscombe et al., 2004). In practice, as we noted earlier, we suspect that these two components will often be closely associated since the awareness of a besmirched ingroup reputation in the eyes of others may well lead to a similar negative perception of the ingroup by its members. Still, insofar as collective shame does involve such reputational aspects, this does imply that one strategy for coping with it is to "manage" the ingroup's reputation by appearing to endorse some restitution to the outgroup. A contemporary illustration of this process at work was provided by Ken Livingston, mayor of London. Commenting on the 200<sup>th</sup> anniversary of the abolition of slavery in Britain, Mr Livingston said: "A British state that refuses to apologise for a crime on such a gigantic scale as the slave trade merely lowers our country in the opinion of the world" (as quoted in the Guardian newspaper, 24 March 2007).

Research support for this image management consequence of shame was found by Schmader and Lickel (2006). They asked Hispanic participants to identify an event in which a member of their group had done something to confirm a negative stereotype about Hispanics. Feelings of shame about that event were correlated with a desire to repair the image of the ingroup. Such a strategy may be particularly efficacious in the short term – i.e., when confronted with investigators presenting questionnaire items concerning reparation attitudes – since it so easily serves what we believe to be its self (and ingroup) presentational needs. However, such a strategy may be more costly, and hence less likely to be adopted, over a longer period of time. A more likely longer term strategy for reducing shame feelings, we argue, might be denial or other forms of social or cognitive avoidance. If this analysis is correct, then it would explain why it is possible to observe positive shame-reparation associations cross-sectionally (Studies 1 and 2; Brown & Čehajić, 2006; Harvey & Oswald, 2000), but not longitudinally. One further implication is that such a shame-reparation link will be mediated by a desire to protect or improve the ingroup's image in the eyes of others. Study 3 was designed to explore this hypothesis of mediation of the shame-reparation cross-sectional association.

As noted earlier, Iyer et al. (2007) and Leach et al. (2006) have suggested that guilt may be a less important predictor of compensatory attitudes than anger. Indeed, Iyer et al. (2007) found that the effects of both guilt and shame disappeared once anger was controlled. To check whether anger could also account for the guilt-reparation and shame-reparation associations we have observed, we included a measure of anger in this new study.

In Studies 1 and 2 the measure of collective shame tapped mainly the negative ingroup essence component of shame. Moreover, the items comprising it (deliberately) eschewed the words "shame" or "ashamed" since we wanted to avoid semantic overlap

with the items comprising the guilt scale. Although we were successful in the latter aim, it has to be conceded that the reliability of the three-item shame measure was sub-optimal and may also have lacked some face validity. Thus, a second goal of this third study was to enlarge and improve the measure of collective shame. We sought to do this in four ways. First, by adding items that captured more directly the "reputational" aspect of the emotion. Second, by incorporating the key emotion words "shame", "ashamed" and "humiliated" and tying them specifically to the "negative essence" and "reputational" concepts. Third, by focussing more directly on felt emotions. In the earlier version of the scale, it might be argued, there was some conflation of the appraisal aspect of emotion – "when I think of the manner in which the Mapuche have been treated, I think that we .....are predisposed to be racist" - with the emotion of shame itself. In this improved version, therefore, we make feelings of shame (and associated emotions) absolutely explicit and distinct from mere appraisals of threats to the ingroup's image. Fourth, by increasing the range and number of items dealing with the historical mistreatment of indigenous peoples in Chile. At the same time, we also aimed to improve the internal reliabilities of the guilt and reparation measures and included some additional measures to check for alternative interpretations of the observed effects.

The hypotheses of this cross-sectional study were as follows:

- 1. Based on Studies 1 and 2 and other empirical work (e.g., Harvey & Oswald, 2000), it was predicted that *both* collective guilt and shame would be independently and positively associated with reparation attitudes.
- 2. It was predicted that the shame-reparation link would be mediated by a desire to improve the ingroup's public reputation.

Method

**Participants** 

Participants were 193 students (undergraduate and pre-undergraduate induction) at a university in Santiago, Chile (M = 91, F = 93, 9 unspecified;  $M_{age} = 16.89$ , range 14 - 34 years) who agreed to take part on a voluntary basis.

#### Procedure

Participants filled out the questionnaire in Spanish in class time. The questionnaire was described as being a Study of Social Attitudes and began with a brief introductory paragraph that referred to the historical conflicts between the Mapuche and the Non-Indigenous groups over land, culture and language issues. Participants then filled out the questionnaire. Following completion of the questionnaire, participants were debriefed.

Measures

Collective guilt. This comprised eight items. Three of these were from Studies 1 and 2 (or were close approximations thereof and five were new (see Table 1). Altogether, these 8 items produced a highly reliable scale,  $\alpha = .93$ .

Collective shame. This comprised 10 items all of which explicitly tapping emotions related to the different facets of shame (see Table 1). These 10 items also made a highly reliable scale,  $\alpha = .93$ .

Appraisal of image threat. A separate scale specifically measuring appraisals of the threat to the ingroup's image rather than the actual emotions caused by those appraisals, was also devised from three items (see Table 1),  $\alpha = .75$ .

*Reparation attitudes*. This comprised the five original items, together with two new ones (see Table 1). This scale also had a satisfactory internal reliability,  $\alpha = .86$ .

Reputation management. This was a new scale that tapped a concern with and a desire to improve the reputation of the ingroup (Chile). It consisted of 9 items (see Table 1). This scale had very good internal reliability,  $\alpha = .91$ .

Anger. Three items tapped participants' anger at the past mistreatment of the Mapuche (see Table 1). These formed a reliable scale,  $\alpha = .86$ .

All items used a 7 point response format (1 = completely disagree, 7 = completely agree) so that a high score indicated a high value of the construct. Various demographic details (e.g., age, sex) of participants were also recorded.

#### Results

The results from this study are presented in two sections. In the first we present factor analysis of the new collective guilt and shame scales to demonstrate their empirical distinctiveness. In the second section we present findings from multiple regression analyses that tested our two hypotheses.

Collective guilt and shame measures

All 18 items comprising the guilt and shame scales were factor analysed using the principal axis extraction method with oblimin rotation. Inspection of the eigen values and the scree slope clearly indicated a two-factor solution (59.4% variance accounted for). All the guilt items loaded on the same factor (loadings .58 to .90, and cross-loadings on the other factor, < .12). All the shame items loaded on the second factor (loadings .65 to .85, with cross-loadings on the other factor < .13). This analysis thus provided excellent evidence for the distinctiveness of the new guilt and shame scales and, as noted earlier, both had excellent internal reliabilities (> .90). As usual, these overall Guilt and Shame scales were moderately inter-correlated, r(186) = .68, p < .001.

## Regression analyses

Table 4 presents the means, standard deviations of the principal variables used in the multiple regression analyses. To test our mediation hypothesis for the shame – reparation link, we regressed Reparation attitudes onto Guilt and Shame in a first step, and then added our measure of Reputation management in a second step (Baron & Kenny,

1986). The variance explained in the first step of this model was respectable,  $R^2 = .37$ , F(2, 183) = 54.36, p < .001. In this first step, both Guilt and Shame were reliable predictors of Reparation attitudes,  $\beta s = .34$  and .32 respectively, both  $p < .001^3$ . Adding Reputation management in the second step produced a reliable increase in variance explained,  $\Delta R^2 = .065$ , Fchange = 21.04, p < .001. The regression coefficient for Guilt dropped only slightly in this step,  $\beta = .30$ , p < .001, while that for Shame dropped markedly,  $\beta = .15$ , to become non-significant (p < .07). And, as expected, the coefficient for the mediator was also highly reliable,  $\beta = .32$ , p < .001. The Sobel test for the predicted mediation of Shame by Reputation management was reliable, z = 3.76, p < .001, indicating that mediation had occurred A test for possible mediation of the Guilt – Reparation effect proved non significant, z = 1.49, p < .14. Finally, only Shame predicted Reputation management,  $\beta = .53$ , p < .001; the coefficient for Guilt was small and unreliable,  $\beta = .12$ , p < .12.

Next we checked for various alternative explanations of the above finding. In a further regression analysis we added Appraisal of image threat in a first step, before entering Guilt and Shame. The logic here was to demonstrate that the associations between Guilt and Shame held even when controlling for threat appraisals. It seemed that they did. Though Appraisal of image threat had a reliable association with reparation,  $\beta$  = .40, p < .001, the relationships between Guilt, Shame and Reparation were still highly significant in the second step of the analysis,  $\beta$  = .34, p < .001, and  $\beta$  = .24, p < .005, respectively. Moreover, adding the Reputation mediator in the final step still resulted in a non-significant effect for Shame,  $\beta$  = .14, p < .11, a reduction that a Sobel test indicated was reliable, z = 2.85, p < .005. In contrast, the beta for Guilt was little affected by the addition of the mediator,  $\beta$  = .30, p < .001.

In a further analysis, we examined whether our effects for Guilt and Shame held even when controlling for Anger about the plight of the Mapuche (Iyer et al., 2007).

Accordingly, we added Anger in the first step,  $\beta$  = .49, p < .001. However, in the second step Guilt and Shame still proved to be reliable predictors of reparation attitude,  $\beta$  = .27 and .26 respectively, both p < .001. Moreover, the hypothesized mediation of the Shame effect was still clearly visible in the third step: the Shame effect dwindled to non-significance,  $\beta$  = .12, p < .16, a reliable mediation effect according to a Sobel test, z = 3.47, p < .001; the Guilt effect was little changed,  $\beta$  = .24, p < .001. Thus, it seems that our effects pertain above and beyond any role played by Anger.

Finally, we added *both* Appraisal of image threat and Anger as controls in the first step of the regression. Both proved to be independent predictors of Reparation attitude,  $\beta = .28$  and .41 respectively, both p < .001. Nevertheless, the Guilt and Shame effects were still significant in the third step, even with both controls added: Guilt,  $\beta = .28$ , p < .001; Shame,  $\beta = .20$ , p < .03. And the predicted mediation of the Shame-Reparation link was still observable in the final step, while the Guilt-Reparation link was little affected: Guilt,  $\beta = .25$ , p < .001; Shame,  $\beta = .11$ , p < .20. Again, a Sobel test indicated that mediation had occurred, z = 2.64, p < .01.

#### Discussion

The results from this third study support our hypothesis about one of the possible underlying reasons for the cross-sectional association between Shame and Reparation attitudes. As we had surmised, that association is mediated by a desire to improve or maintain the ingroup's reputation. Moreover, the shame-reparation link, and its mediation, held even when controlling for appraisals of threat to the ingroup's image and anger over the treatment of the Mapuche.

Three other features of this study deserve comment. One concerns the development of improved measures of guilt and shame. The new measures now had high internal reliabilities, had good face validity in the sense that they now clearly tapped intergroup

emotions and not appraisals and, as we have seen, were both predictive of reparation attitudes. In the absence of an alternative contextualized measure of shame elsewhere, we look forward to other investigators exploring its potential in other fields.

The second noteworthy point concerns the consistency of the results from the cross-sectional analyses across all three studies, despite the use of different scales and university instead of school students in this third study. As we have seen, *both* collective guilt and shame are reliably associated with reparation attitudes contemporaneously. Although existing theory conventionally does not predict such prosocial effects for shame, there seems little doubt about the empirical robustness of the finding (see also, Brown & Čehajić, 2006; Harvey & Oswald, 2000).

Third, it is interesting that these associations between guilt, shame and reparation held even when controlling for anger over the plight of the outgroup. This finding contrasts with that of Iyer et al. (2007) who found that neither guilt nor shame were predictive of reparation when anger was controlled (though cf. Leach et al., 2006). There would seem to be two possible explanations for this disparity. One lies in the measures of guilt, shame and anger used in the two studies. Iyer et al. (2007) used a technique developed by Lickel et al. (2005) in which respondents are asked to indicate how much of each of several emotions (e.g., guilty, remorseful, ashamed, disgraced, furious, angry) they felt about the situation in Iraq. As the authors acknowledge, this method introduces some ambiguity about whether the emotions are personally or group based. In contrast, our guilt, shame and anger items are explicit in their reference to emotions felt about what the ingroup has (or has not) done to the outgroup. By contextualizing the questions in this way, we believe that our scales are more clearly focusing on intergroup emotions. A second explanation for the difference between the studies is that Iyer et al. (2007) were focussing on a contemporary and highly charged political situation (the ongoing war in Iraq), whilst our Chilean Indigenous-Non-

Indigenous relationship comprises a mixture of some contemporary but mainly historical mistreatment of the outgroup. Conceivably, with the passage of time, self-conscious emotions like guilt and shame regain some of their potency to predict reparative tendencies independently of anger, whilst with ongoing ingroup transgressions the latter emotion may have more immediate action potential (Leach et al., 2006).

#### General Discussion

In drawing general conclusions from these three studies, we would make the following brief remarks.

First, we believe that our findings help to substantiate the theoretical distinction between guilt and shame at a collective level. Although several commentators have argued that guilt and shame have different underlying psychologies and should have different social consequences (Branscombe et al., 2004; Lickel et al., 2004; Tangney & Fischer, 1995), until now there has been little direct evidence to demonstrate this at an intergroup level. Apart from Lickel et al.(2005), who included "friends" together with groups proper like "family" and "ethnicity" as potential sources of "vicarious" shame and guilt, and Iyer et al.'s (2007) recent study of reactions to the war in Iraq, there has been little research showing that the two collective emotions can be distinguished empirically and then lead to different outcomes. In the studies reported here, we have shown not only that they can be reliably measured but they have different longitudinal effects: collective guilt leads to a subsequent increase in reparative attitudes towards the outgroup, albeit especially for low shame people, whilst collective shame appears to have only short term effects on reparation and no independent longitudinal effects. In parentheses, we can also note that collective shame has also been observed to be positively correlated with reparation attitudes in crosssectional studies conducted in very different contexts, post-conflict Bosnia (Brown & Čehajić, 2006) and interethnic relations in the US (Harvey & Oswald, 2000).

Second, our findings shed further light on the consequences of collective shame. As we have shown, shame seems to be a response to both a perception that the ingroup is flawed in some way and to a concern about how others see the ingroup. This latter "reputational" aspect of shame is what can lead to short-term prosocial effects as ingroup members seek to present their group in a better light (Schmader & Lickel, 2006). The mediation results from Study 3 are certainly consistent with this analysis. One interesting further implication of this argument could be to examine the consequences of making reparation attempts public as opposed to allowing them to remain anonymous. If collective shame is primarily concerned with the potential damage to the image of the ingroup, then one might expect it to be more sensitive to such anonymity manipulations than would be collective guilt. There is some preliminary evidence to support such a contention (Coen & Brown, 2005). However, in noting that shame can have short term prosocial effects, we do not wish to imply that it cannot also have the kinds of negative consequences that traditional theorizing predicts. Indeed, we suspect that the fundamentally aversive quality of shame leads people to "take to the path of least resistance" in dealing with it. In questionnaire studies, as here, the easiest course may be one of reputation management, endorsing or claiming to endorse restitution to the outgroup. In other contexts, blaming the victim group or avoiding it may be a less effortful option. A recent experimental study in which collective shame was independently manipulated from collective guilt found evidence of just such negative reactions (Brown & Chatfield, 2006).

Third, whilst we believe that our findings have clarified some fundamental issues in this burgeoning research domain, there is obviously much still to be done. For example, it will be important to investigate the antecedents of collective guilt and shame. At the start of this paper, we noted that there are some trends in international politics towards identifying, and then encouraging acceptance of responsibility for, illegitimate collective actions.

However, history is replete with the failure of groups to acknowledge their misdeeds (e.g., Cohen, 2001). So, one question is to identify the conditions which give rise to people's experience of their ingroup's culpability and what form that self-conscious emotion takes (shame or guilt). In two recent studies in Bosnia, we have found that a key antecedent of collective guilt is some acknowledgement of and acceptance of responsibility for the ingroup's misdeeds, while an appraisal of the extent to which the misdeeds threaten the ingroup's image in the eyes of others seems to stimulate collective shame (Čehajić & Brown, 2006). Lastly, it will obviously be important to extend the longitudinal work we have initiated here to include more than two measuring points and a longer time lag. Such a design would give a more complete picture of the temporal dynamics involved in the relationships between collective guilt, shame and various outcome variables.

Finally, we believe that our findings on the beneficial consequences of collective guilt have practical implications. Given that they were obtained from adolescent students, we are encouraged to believe that incorporating material into educational curricula that highlighted the part of dominant groups in perpetrating injustices could play a useful role in raising awareness and changing attitudes. But, to end on a cautionary note, we would not want to argue that stimulating collective guilt can act as a universal panacea for rectifying intergroup inequalities. For one thing, we have evidence from elsewhere in our research programme that it can be (adversely) implicated in mediating between outgroup contact, knowledge and intergroup anxiety (Zagefka, Gonzalez, Brown & Manzi, 2005). And it is possible that too frequent and repeated reminders of ingroup misdeeds could eventually transform the socially progressive emotion of collective guilt into the more introspective and potentially harmful emotion of collective shame.

#### References

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

Barkan, E. (2000). The guilt of nations. London: Johns Hopkins University Press.

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.

Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin*, *115*, 243-267.

Bijleveld, C. J. H., & van der Kamp, L. J. T. (1998). *Longitudinal data analysis: Designs, models and methods*. London: Sage.

Branscombe, N., Slugoski, B., & Kappen, D. M. (2004). The measurement of collective guilt: What it is and what it is not. In N. Branscombe & B. Doosje (Eds.), *Collective guilt: International perspectives* (pp. 16-34). Cambridge: Cambridge University Press.

Branscombe, N. R., & Doosje, B. (2004). *Collective Guilt: International perspectives*. New York: Cambridge University Press.

Brown, R. & Čehajić, S. (2006). Dealing with the past and facing the future: Mediators of the effects of collective guilt and shame in Bosnia. *Unpubl. MS.*, *University of Sussex*, under review.

Brown, R., & Chatfield, J. (2006). Shame on us: Social consequences of a group-based dysphoric emotion. *Unpublished MS, University of Sussex*, under review.

Buruma, I. (1994). *The Wages of Guilt: Memories of war in Germany and Japan*. London: Jonathan Cape.

Čehajić, S. & Brown, R. (2006). "The Burden of Our Times": Antecedents of group-based guilt and shame. Unpublished MS, University of Sussex. Under review.

Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology*, *34*, 366-374.

Coen, S., & Brown, R. (2005). *It depends on your point of view: Perspective taking,* anonymity and the experience of group based guilt and shame. Paper presented at the Social Psychology Section of the British Psychological Society, Edinburgh.

Cohen, S. (2001). *States of Denial: Knowing about atrocities and suffering*. Oxford: Polity Press.

Cook, T. D., & Campbell, D. T. (1979). *Quasi-Experimentation. Design & Analysis issues* for field settings. London: Houghton Mifflin Company.

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.

Finkel, S. E. (1995). Causal analysis with panel data. Thousand Oaks: Sage.

Harvey, R. D., & Oswald, D. L. (2000). Collective guilt and shame as motivation for White support for Black programs. *Journal of Applied Social Psychology*, *30*, 1790-1811.

Haslam, N., Rothschild, L., & Ernst, D. (2000). Essentialist beliefs about social categories. *British Journal of Social Psychology*, 39, 113-127.

Instituto Nacionalde Estadística. (2002). *Estadísticas sociales de los pueblos indígenas en Chile*. Santiago de Chile: Gobierno de Chile.

Iyer, A., Leach, C. W., & Crosby, F. (2003). White guilt and racial compensation: The benefits and limits of self-focus. *Personality and Social Psychology Bulletin*, 29, 117-129.

Iyer, A., Schmader, T. & Lickel, B. (2007). Why individuals protest the perceived transgressions of their country: The role of anger, shame and guilt. *Personality and Social Psychology Bulletin*, *33*, 572-587.

Leach, C., Iyer, A., & Pederson, A. (2006). Anger and guilt about ingroup advantage explain the willingness for political action. *Personality and Social Psychology Bulletin*, 32, 1232-1245.

Leach, C.W., Snider, N & Iyer, A. (2002). "Poisoning the consciences of the fortunate": The experience of relative advantage and support for social equality. In, I. Walker and H. Smith (Eds) *Relative Deprivation: Specification, development and integration.* (pp. 136-163). Cambridge: Cambridge University Press.

Lepore, L., & Brown, R. (1997). Category activation and stereotype accessibility: Is prejudice inevitable? *Journal of Personality and Social Psychology*, 72, 275-287.

Lewis, H. B. (1971). *Shame and Guilt in Neurosis*. New York: International Universities Press.

Lickel, B., Schmader, T., & Barquissau, M. (2004). The evocation of moral emotions in intergroup contexts: The distinction between collective guilt and collective shame. In N. Branscombe & B. Doosje (Eds.), *Collective guilt: International perspectives* (pp. 35-55). Cambridge: Cambridge University Press.

Lickel, B., Schmader, T., Curtis, M., Scarnier, M. & Ames, D. R. (2005). Vicarious shame and guilt. *Group Processes and Intergroup Relations*, 8, 145-157.

McGarty, C., Pederson, A., Leach, C. W., Mansell, T., Waller, J., & Bliuc, A.-M. (2005). Group-based guilt as a predictor of commitment to apology. *British Journal of Social Psychology*, *44*, 659-680.

McClelland, G. H., & Judd, C. M. (1993). The statistical difficulties of detecting

interactions and moderator effects. Psychological Bulletin, 114, 376-390.

Mead, G. H. (1934). On Social Psychology. Chicago: University of Chicago Press.

Ministerio de Planificación y Cooperación. (2003). *Informe comisión de verdad histórica y nuevo trato de los pueblos indígenas*. Santiago: Gobierno de Chile.

Niedenthal, P. M., Tangney, J. P., & Gavanski, I. (1994). "If only I weren't" versus "If only I hadn't": Distinguishing shame and guilt in counterfactual thinking. *Journal of Personality and Social Psychology*, 67, 585-595.

Pederson, A., Beven, J., Walker, I., & Griffiths, B. (2004). Attitudes toward indigenous Australians: The role of empathy and guilt. *Journal of Community and Applied Social Psychology*, 14, 233-249.

Pettigrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in western Europe. European Journal of Social Psychology, 25, 57-75.

Roccas, S., Klar, Y., & Liviatan, I. (2004). Exonerating cognitions, group identification, and personal values as predictors of collective guilt among Jewish-Israelis. In N.

Branscombe & B. Doosje (Eds.), *Collective Guilt: International perspectives* (pp. 130-147). Cambridge: Cambridge University Press.

Roseman, I. J., West, C., & Schwartz, T. S. (1994). Phenomenology, Behaviors, and Goals differentiate discrete emotions. *Journal of Personality and Social Psychology*, 67, 206-221.

Saiz, J.-L. (2002). Atribución de estereotipos: Los indígenas mapuches que perciben los chilenos. In J. F. Morales, D. Páez, A. L. Kornblit & D. Asún (Eds.), *Psicología social* (pp. 145-151). Buenos Aires: Prentice Hall-Pearson Education.

Schmader, T. & Lickel, B. (2006). Stigma and Shame: Emotional responses to the stereotypic actions of one's ethnic ingroup. In, S. Levin & C. van Laar (Eds) *Stigma and Group Inequality: Social psychological approaches*. NY: Erlbaum.

Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology*, *52*, 1061-1086.

Smith, E. R. (1993). Social identity and social emotions: Toward new conceptualizations of prejudice. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition and stereotyping* (pp. 297-315). San Diego: Academic Press.

Smith, R. H., Webster, J. M., Parrott, W. G., & Eyre, H. L. (2002). The role of public exposure in moral and non-moral shame and guilt. *Journal of Personality and Social Psychology*, 83, 138-159.

Steele, S. (1990). *The Content of our Character: A new vision of race in America*. New York: St Martin's Press.

Swim, J. K., & Miller, D. L. (1999). White guilt: Its antecedents and consequences for attitudes toward affirmative action. *Personality and Social Psychology Bulletin*, 25, 500-514.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson Hall.

Tangney, J. P. (1991). Moral affect: The good, the bad, and the ugly. *Journal of Personality and Social Psychology*, *61*, 598-607.

Tangney, J. P., & Fischer, K. W. (1995). Self conscious emotions: The psychology of shame, guilt, embarrassment and pride. New York: Guilford.

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are Shame, Guilt and Embarrassment distinct emotions? *Journal of Personality and Social Psychology*, 70, 1256-1269.

Tangney, J. P., Wagner, P., Fletcher, C., & Gramzow, R. (1992). Shamed into anger?

The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology*, 62, 669-675.

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: Blackwell. Weiner, B. (1995). Judgements of responsibility: A foundation for a theory of social conduct. New York: Guilford Press.

Yzerbyt, V. Y., Rocher, S., & Schadron, G. (1997). Stereotypes as explanations: A subjective essentialistic view of group perception. In R. Spears, P. J. Oakes, N. Ellemers & A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 20-50). Oxford: Blackwell.

Zagefka, H., Gonzalez, R., Brown, R., & Manzi, J. (2005). To know you is to love you?: Differential longitudinal effects of intergroup contact and knowledge on intergroup anxiety and prejudice among Indigenous and Non-Indigenous Chileans. *Unpublished MS*, *University of Sussex*.

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This research was supported by grant from the Chilean National Funding for Scientific and Technological research program (FONDECYT, grant N° 1020954) allocated to Roberto González. We gratefully acknowledge the perceptive comments of Colin Leach and Anja Zimmermann on an earlier version of this paper.

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#### Footnotes

- 1. The use of causal terminology here must, of course, be taken in the context of the correlational designs of our studies. Although the longitudinal designs of Studies 1 and 2 permit stronger causal inferences than cross-sectional designs, definitive statements about causality should still be made cautiously.
- 2. This sample comprised a different group of Non-Indigenous school students who were taking part in a closely related study to the one reported here. The larger N permitted a statistically robust analysis of the factorial structure of the guilt and shame items.
- 3. The Guilt X Shame was non-significant in these analyses and so is not considered further. In Studies 1 and 2 also there were no interactions between guilt and shame at a cross-sectional level.
- 4. It is also worth noting that we obtained very similar results in another study (N = 192 Chilean university students). In that study we used rather similar measures of Guilt and Shame to Studies 1 and 2 in fact, they correlated .79 and .73 respectively with the original measures and identical measures of Reparation attitude and Reputation management to those used in Study 3. Regressing Reparation on Guilt and Shame yielded significant effects for both,  $\beta$  = .28 and .39, both p < .001. Adding the mediator in a second step affected the Guilt relationship little ( $\beta$  = .25, p < .001) but reduced the Shame effect noticeably ( $\beta$  = .30, p < .01), a significant drop according to a Sobel test, z = 2.54, p < .02.

Table 1

Items of principal measures

Measure	Studies 1 & 2	Study 3		
Collective Guilt	I feel guilty for what we, the Non-Indigenous	I feel guilty for the manner in		
	Chileans, have done to the Mapuche in the	which the Mapuche have been treated		
	past	in the past by Non-Indigenous Chileans		
	When I think about the racism that exists	When I think how Non-Indigenous have		
	towards the Mapuche, I feel guilty to be	stolen the Mapuche lands, I feel guilty		
	a Non-Indigenous Chilean			
		I feel very bad when I realise what we		
	To think how we Non-Indigenous Chileans	the Non-Indigenous Chileans have contributed		
	have stolen the Mapuche lands makes me	to the loss of Mapuche language and customs		
	guilty			
		Sometimes I feel guilty for the things that		
	I feel guilty when I realise that we	Non-Indigenous Chileans have done		
	Indigenous Chileans have contributed to	to the Mapuche		
	the loss of Mapuche language and customs	When I think what Non-Indicances		
		When I think what Non-Indigenous		
		Chileans have done to the Mapuche, I feel		
		guilty		
		Even if I have done nothing bad, I		
		feel guilty for the behaviour		
		of Non-Indigenous Chileans		
		toward the Mapuche		
		I feel guilty for the bad living		
		conditions of the Mapuche		
		To think how we Chileans show		
		intolerance, by refusing to offer job		
		contracts to Mapuche people, makes me feel		
		guilty		
Collective Shame	Due to the long history of discrimination	I feel bad because the behaviour of		
	against the Mapuche, I think that we	Non-Indigenous Chileans towards the		
	Non-Indigenous Chileans are predisposed	Mapuche people has created a bad image		
	to be racist	in the eyes of the world		

	When I think of the manner in which the Mapuche have been treated, I sometimes think that we Non-Indigenous Chileans are racist and mean	I feel bad when I see an international report on the treatment received by the Mapuche on the part of Non-Indigenous Chileans
	Even though I do not discriminate against the Mapuche, I feel bad when I realise that other Non-Indigenous Chileans do	Sometimes it shames me how others can think for the manner in which we have harmed the Mapuche
		To think how Chile is seen for its treatment of the Mapuche makes me feel ashamed
		I feel humiliated when I think of the negative manner that Chile is seen by the rest of the world for how it has treated the Mapuche
		I feel shame when I think how Non-Indigenous Chileans have behaved towards the Mapuche
		I feel ashamed to be a Non-Indigenous Chilean for the way we have treated the Mapuche
		I feel ashamed for the damage done to the Mapuche by Non-Indigenous Chileans
		I feel ashamed for the racist tendency of Indigenous Chileans
		It shames me when I realise that  Non-Indigenous Chileans could be intolerant by nature
Reparation Attitude	I feel that the Mapuche should have economic benefits as a reparation for the damage that we've caused them	I feel that the Mapuche should have economic benefits as a reparation for the damage that we've caused them

Our government should apologise for Our government should apologise for all the maltreatment and deprivation that all the maltreatment and deprivation that we've caused to the Mapuche we've caused to the Mapuche I would like my school to have more I would like my school to have more class materials (books, magazines, musical materials (books, magazines, musical instruments, etc.) that would allow us to instruments, etc.) that would allow us to have a better understanding of the have a better understanding of the history and culture of the Mapuche history and culture of the Mapuche I would like our country to be more tolerant I would like our country to be more tolerant and to have a good relationship and to have a good relationship between the Mapuche and between the Mapuche and Non-Indigenous Chileans Non-Indigenous Chileans I think that in recent times the media have I think that in recent times the media have devoted too much space to speak ill devoted too much space to speak ill of the Mapuche of the Mapuche Chilean universities should have special scholarships for Mapuche students When they offer work, private companies should guarantee positions to Mapuche people Prejudice I would be bothered if most of my class-mates were Mapuche I would be concerned if my teacher or boss was Mapuche I would feel uncomfortable sitting next to a Mapuche person on a bus Mapuche people should be marginalised in Chilean society If I would meet a Mapuche person in the

	street, I would feel tense and nervous	
	street, I would reel tellse and her vous	
	Sometimes I think that this country	
	would be better off with fewer Mapuche	
	_	
	The Mapuche exaggerate their problems	
	to get help	
	The Mapuche's problems are due to	
	themselves	
	memserves	
	The Mapuche receive more help	
	from the government than they really deserve	
Anger		Sometimes I feel angry when I think what my
7 Higei		group has done to Mapuche people in the past
		group has done to waptene people in the past
		Thinking about how my group has treated
		Mapuche people makes me feel angry
		Talking about the past and the issues
		regarding the treatment of Mapuche people
		by my group makes me angry
Reputation		I would like to improve the image of Chile
Management		in the rest of the world in respect of how
Wanagement		we treat indigenous peoples
		I believe we should restore the
		international reputation of Chile associated
		with the treatment of indigenous peoples
		I would like other magning to have a hatter
		I would like other people to have a better
		impression of Chile as a country in relation
		to how we have treated indigenous peoples
		I want other countries to respect us again for
		the way we treat indigenous people
		, c. c. mangenous people
i		

	I believe that it is important that Chile is
	seen in a more favourable manner by the
	rest of the world in relation to indigenous issues
	If we do not resolve the outstanding issues
	about the indigenous people in Chile, it will
	damage us as a country
	If we do not change our attitude towards
	indigenous people the international image
	of Chile will become negative
	In order for Chile to improve, it should
	address the indigenous issues
	The reputation that Chile has at an international
	level depends to a large extent on the
	treatment that we give to the indigenous
	peoples
Image Threat	I consider that our image as Chileans has
Appraisal	negatively affected by the way we have
	addressed Mapuche issues
	Sometimes I believe that Chile has lost
	respect for the way it has dealt with Mapuche
	issues
	Due to the way we have addressed the
	Mapuche issues, I believe that now
	people judge Chileans negatively

Table 2
Study 1: Means of and inter-correlations among principal variables

	$M_{T1}$	SD	$M_{T2}$	SD	Reparation	Guilt	Shame	Prejudice
Reparation	3.52	.86	3.48	.83	.57	.59/.66	.62/.60	24/34
Guilt	2.96	1.03	2.89	1.04	.46	.59	.58/.57	15/15
Shame	3.62	.91	3.40	1.01	.41	.28	.45	25/26
Prejudice	2.31	.78	2.35	.88	20	17	32	.51

## **Notes**

- 1. Coefficients on or below the diagonal in bold type are T1-T2 correlations (e.g., from T1 values of variables in column 1 to T2 values in variables in top row). Above the diagonal are cross-sectional correlations at T1/T2
- 2.  $rs \ge .20$ , p < .05;  $rs \ge .25$  p < .01;  $rs \ge .32$  p < .001, two tailed.

Table 3
Study 2: Means of and inter-correlations among principal variables

	$M_{\text{T1}}$	SD	$M_{T2}$	SD	Reparation	Guilt	Shame	Prejudice
Reparation	3.44	.99	3.44	.99	.40	.58/.55	.50/.48	35/43
Guilt	2.98	1.00	2.91	1.01	.39	.46	.52/.49	21/20
Shame	3.69	.98	3.53	.97	.30	.24	.47	23/29
Prejudice	2.32	.82	2.40	.82	19	.01	20	.46

## <u>Notes</u>

- 1. Coefficients on or below the diagonal in bold type are T1-T2 correlations (e.g., from T1 values of variables in column 1 to T2 values in variables in top row). Above the diagonal are cross-sectional correlations at T1/T2.
- 2. For rs in bold type,  $rs \ge .19$ , p < .05;  $rs \ge .24$ , p < .01;  $rs \ge .30$ , p < .001. For rs in light type (with larger df), all p < .001. All two tailed.

Table 4

Study 3: Means of and inter-correlations among principal variables

	Mean	SD	Guilt	Shame	Reputation	o Appraisa	l Anger
Reparation	4.28	1.48	.57	.56	.57	.38	.49
Guilt	3.15	1.47		.68	.48	.33	.45
Shame	3.46	1.51			.61	.53	.44
Reputation	4.04	1.41				.59	.38
Appraisal	3.86	1.47					.29
Anger	3.93	1.56					
All rs, $p < .001$							

# Figure Caption

 $\underline{Figure~1.}~Shame~moderating~the~longitudinal~relationship~between~guilt~and~reparation~in~Study~2$ 

