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Collective apologies moderate the effects of justice motives on support for collective punishment

**Justice concerns and the punishment of an offender**

All societies are regularly confronted with various offenses that challenge what we consider appropriate, fair and just. These offenses raise numerous justice-related concerns, among which the necessity to reaffirm the violated norm and to give the offender their *just deserts* (i.e., to give them what they deserve), the necessity to *compensate* the victim (i.e., to make up for their loss), and the need to *deter* anyone who might be tempted to behave in the same way (i.e., to prevent future offenses; Carlsmith & Darley, 2008; Darley, 2002; Darley, Carlsmith, & Robinson, 2000; Darley & Pittman, 2003; Miller & Vidmar, 1981; Okimoto & Wenzel, 2008; Wenzel & Okimoto, 2006). When reacting to an offense, people may tend to focus mostly on one or the other of these concerns, depending on the characteristics of the offense, the offender, the situation, or even the observer (e.g., Miller & Vidmar, 1981; Vidmar & Miller, 1980). For instance, people who have been directly harmed by an offender (i.e., the victims of an offense) are primarily driven by status-related motives (e.g., Shnabel & Nadler, 2008) and might mostly focus on compensation concerns. By contrast, third-party observers are primarily driven by the upholding of important values, and by the maintenance of a belief in secure and just world (Duckitt, 2009; Fehr & Fishbacher, 2004; Lerner, 1980). Thus, third-party observers might mostly focus on just-deserts and deterrence concerns (e.g., Carlsmith, Darley, & Robinson, 2002; Gromet, 2012; Vidmar & Miller, 1980). That said, none of these motives is really ever absent when judging an offense (Gromet, 2012; Darley & Pittmann, 2003; Vidmar & Miller, 1980), and these justice concerns are generally correlated (e.g., Orth, 2003). This is notably due to the fact that these distinctions are mostly theoretical and that one concern (e.g., compensation) can fuel another (just-deserts; Gromet, 2012).
Importantly, all of these concerns may lead an observer to support the punishment of the offender in order to restore a sense of justice. Indeed, punishment of the offender seems to be a predominant response to an offense, and people tend to favor punishment over other justice restoration processes (e.g., rehabilitation of the offender; Wenzel & Okimoto, 2016). Consequently, research has repeatedly shown that, as either of these concerns increase, so does people's motivation to see the offender punished (e.g., Adams & Mullen, 2015; Darley, 2002; Darley & Pittmann, 2003; Gromet, Okimoto, Wenzel, & Darley, 2012; Lloyd-Bostock, 2000; Oswald, 2009; Wenzel & Okimoto, 2016). For instance, studies have shown that one's retributive tendencies increase along one's just-deserts concerns (as fueled by the severity of an offense; e.g., Alter, Kernochan, & Darley, 2007; Carlsmith et al., 2002; DeJong, Morris, & Hastorf, 1976; Oswald, Orth, Aeberhard, & Schneider, 2005; see also Gromet & Darley, 2009). Other studies indicate one's deterrence concerns (as fueled for instance by the likelihood of an offense being repeated) also increase one's motivation to punish an offender (e.g., Darley et al., 2000; see also Oswald, 2009; Lloyd-Bostock, 2000). Finally, some studies indicate one's compensation concerns can also increase one's retributive tendencies towards an offender (e.g., Chavez & Bicchieri, 2013; see also Adams & Mullen, 2015).¹

About collective punishment

Unfortunately, offenders are not always punished for their misdeed (because they get away with it, have not been identified, are no longer alive, etc.). In such cases, the offense still needs to be addressed, justice to be done, and people might seek alternative targets of punishment in order to satisfy their motivation to punish the offender (e.g., Marcus-Newhall, Pedersen, Carlson, & Miller, 2000; Miller, 1948). When the offender is part of a social group, the other group members might be considered as potential targets of punishment, and support for a collective punishment of the group might arise (e.g., Falomir-Pichastor, Staerklé, Depuiset, & Butera, 2007; Heckathorn, 1988, 1990; Pereira, Berent, Falomir-Pichastor,
Staerklé, & Butera, 2015). Of course, this form of punishment is at odds with the cornerstone of our judiciary system, given that it involves punishing innocent people rather than exclusively those responsible for the offense (e.g., Corlett, 1992). Nevertheless, instances of collective punishment are easy to think of, and we might support collective punishment more often than we believe (e.g., in cases of boycotts, embargos, military interventions, etc.). Thus, a better understanding of what exactly drives one’s support for collective punishment constitutes somewhat of an intellectual challenge, and would provide an interesting insight in our understanding of lay people’s sense of justice.

As a matter of fact, two necessary and sufficient conditions might lead third-party observers to support collective punishment. The first one, as mentioned before, is the need to restore a sense of justice: when the offender is out of reach, people might seek alternative targets of punishment in order to satisfy their need for justice. The second one is some sort of association between the offender and the other targets of punishment. Indeed, research on attitude formation and transfer has shown that, when we hold a negative attitude towards one person, we tend to extend this attitude to this person's associates and/or relatives (e.g., Glaser, Dickel, Liersch, Rees, Süssenbach, & Bohner, 2015; Pryor, Reeder, & Monroe, 2012). Interestingly, it has been shown that the similarity between two objects increases attitude transfer effects (Shook, Fazio, & Eiser, 2007), and that such transfer might occur on the simple basis of a common group membership between two people (Ranganath & Nosek, 2008). Further, research on displaced aggression, displaced revenge, or vicarious retribution concur to illustrate cases in which one can punish an associate (or other group member) instead of the initial offender to restore a sense of justice (e.g., Gaertner, Iuzzini, & O’Mara, 2008; Marcus-Newhall et al., 2000; Miller, 1948; Sjöström & Gollwitzer, 2015; Stenstrom, Lickel, Denson, & Miller, 2008). Interestingly, these lines of research also show that the tendency to punish the offender's group members critically depends on the strength of the
associations between the target and his/her associates (Alter & Darley, 2009; Gaertner et al., 2008; Sjöström & Gollwitzer, 2015; Stenstrom et al., 2008; see also Marcus-Newhall et al., 2000).

Thus, it appears that an entire group might be punished on the sole basis of its association with an offender, even if the other group members are innocent. To third-party observers, such collective punishment may constitute an alternative way to restore justice following an offense, and critically depends on the intensity of one's justice concerns as well. Accordingly, given that the extension of punishment from the offender to the group is a function of the association between these two targets of punishment, any gesture or action taken by the group to dissociate them from the offender and the offense might reduce observers’ tendency to extend their punitive tendencies to the offender's entire group. In this paper, we suggest collective apologies might accomplish such function and hinder one's tendency to punish innocent group members after an offense.

**About collective apologies**

One of the many factors that might moderate observers' support for collective punishment is a collective apology (e.g., Tavuchis, 1991). Collective apologies can be defined as apologies offered by a group's representative, on behalf of the entire group, and for an offense committed by some or all members of the group. Examples of collective apologies include those offered by the Australian government for the discriminations committed against the Australian indigenes, by Pope John Paul II for the sex abuses committed by catholic priests, by the Tepco Company for the breakdown of a nuclear plant in Fukushima, etc.

Among the many ways in which a collectivity can deal with past offenses, scholars from various fields have considered collective apologies as the most adequate and useful response to address an injustice (Barkan & Karn, 2006; Benoit, 1997; Gibney, 2008).
Research in social psychology has only recently begun to study the effects of collective apologies (for a review, see Hornsey & Wohl, 2013). Yet, most of this research has focused on members of victimized groups who are primarily concerned with the restoration of their social group's social status and dignity (e.g., Shnabel & Nadler, 2008). Moreover, these studies focused on offenses for which the offending group was held collectively responsible for the offense. In such cases, the offending group members are therefore punished for what they have done and/or to restore the victims' needs. Accordingly, one's need for justice can only be satisfied if the group finds a way to address the multiple concerns raised by the offense (Cushman, Durwin, & Lively; 2012) and, following justice restoration theory, offering an apology might help address these concerns (e.g., Wenzel, Okimoto, Feather & Platow, 2008, 2010; see also Okimoto & Wenzel, 2008). That said, it appears collective apologies' ability to address these concerns and restore a sense of justice is rather limited (e.g., Hornsey & Wohl, 2013). Indeed, because they are carefully elaborated, offered on behalf of a group rather by the actual offenders, made public and directed at multiple audiences (Tavuchis, 1991), collective apologies are prone to be considered by their audiences (and especially by members of victimized groups) as a token gesture rather than a sincere act of contrition, and are tainted of suspicions regarding the group's remorse and ulterior motives (e.g., Hornsey & Wohl, 2013; Philpot & Hornsey, 2008; Wohl, Hornsey, & Philpot, 2011). Accordingly, authors have suggested collective apologies would be of lower efficacy as factors otherwise known to increase one's justice concerns and punitive tendencies (such as the intentionality or severity of the offense; e.g., Blatz & Philpot, 2010; Hornsey & Wohl, 2013; Wohl et al., 2011).

While research has only considered collective apologies' potential (and apparently limited) ability to address the concerns raised by an offense, it has not yet considered their potential ability to dissociate innocent group members from the offenders. Let us remind that,
when a group is innocent, its members are not punished because they have committed an offense, but simply because they are associated to the offenders. Thus, in such case, collective apologies might serve another function than restoring a sense of justice: they might be a useful way to dissociate the innocent group members from the initial offenders. Evidence in favor of this hypothesis stems from studies on the content of collective apologies which have shown they sometimes include an explicit statement meant to dissociate the apologizing group members from the actual offenders (e.g., Blatz, Schumann, & Ross, 2009; Kirchhoff & Cehajic-Clancy, 2014). This might of course be considered as an attempt from the group to protect its image and dissociate from the offenders (Marques & Paez, 1994; see also Shnabel & Nadler, 2008; Leunissen, De Cremer, Folmer, & van Dijke, 2013). Most relevant to the present purpose, some studies have shown that collective apologies do hinder third-parties' tendency to punish all the members of a group especially when the group was innocent (rather than guilty), and irrespective of the group's level of remorse (Berent, Pereira, & Falomir-Pichastor, 2016). Thus, when a group is innocent, collective apologies might indicate the innocent group members are not to be associated to the offender neither considered as appropriate targets of punishment. As such, collective apologies might hinder one's tendency to extend the punishment from the offender to his/her (innocent) fellow group members or, put in other words, collective apologies could be of greater efficacy as one's justice concerns increase.

**The present studies**

Three studies were therefore conducted to test the hypothesis that collective apologies might moderate the effects of one's justice concerns on support for collective punishment. In all studies, participants were presented with an offense committed by a few people, and we measured participants' support for the collective punishment of the group these people belonged to. We additionally measured (Study 1) or manipulated (Studies 2 & 3) the intensity
of three different justice concerns (compensation, deterrence, and just-deserts). In all studies, we also manipulated the presence (vs. absence) of collective apologies (Studies 1-3) in order to test for their moderating role. This was done across two different paradigms and types of offense (an intergroup aggression during a sports competition – Studies 1 and 2, and an embassy attack during hostile popular demonstrations – Study 3). Our main hypotheses were that people's tendency to support collective punishment would increase along with their justice concerns and that, most importantly, collective apologies would hinder this effect. Should these effects be confirmed, this would constitute the very first demonstration of both the effect of one's justice concerns on support for collective punishment, and of collective apologies' ability to hinder this effect. Additionally, these studies would be the first to indicate that collective apologies might be particularly effective when one's justice concerns are high (rather than low).

**Study 1**

Study 1 aimed at providing an initial test of our contention that collective apologies will hinder the link between one's justice concerns and support for collective punishment. In order to do so, we submitted our participants to a vignette describing an intergroup aggression. Participants’ concern for the compensation of the victims was assessed as a proxy of their justice concerns, and collective apologies were manipulated in order to examine the impact of both these variables on participants' support for the collective punishment of the offending group.

**Method**

**Participants.** Participants were recruited on the campus of a large University and in various public areas. They were invited to complete a questionnaire on the way people perceive and judge different types of offenses. Following recommendations made at the time we ran this study (see Simmons, Nelson, Simonsohn, 2013), we aimed at 40 to 50 participants.
per experimental condition, and a hundred questionnaires were therefore issued for the purpose of this study. A total of 96 people accepted the invitation and entirely filled in the questionnaire (66 women and 30 men; $M_{\text{age}} = 24.61$, $SD_{\text{age}} = 11.2$). They were randomly assigned to one of the two experimental conditions (*No apology* vs. *Apologies*). At the end of the study, participants were thanked and debriefed.

**Procedure.** The procedure of this Study (as of the other ones in this paper) followed one previously used in the study of collective punishment (see Berent et al., 2016a; Berent, Pereira, & Falomir, 2016b; Pereira et al., 2015). Participants were first invited to read the description of the (allegedly true) incident they were to be questioned about: They were told about an ice-hockey fan-club whose members recently went to support their favorite team during a hockey game. Upon their arrival at the stadium, the members of the fan-club started whistling and shouted provocative things to the supporters of the opponent team. As the game went on, the members of the fan-club sustained the tension, and some smoke grenades were lit. Taking advantage of the poor visibility the smoke had caused, unidentified members of the fan-club threw projectiles at the supporters of the opponent team, heavily injuring two of them. Following the description of the offense, the presence (vs. absence) of collective apologies was manipulated, and participants’ justice concerns and support for collective punishment were thereafter assessed.

**Independent variables.**

**Collective apologies.** Participants were either told that, after the incident had occurred, the representative and spokesperson made no declaration about what had happened (*No apology* condition), or that the representative and spokesperson offered the group’s official apologies. He expressed regret for what had happened, apologized to the victims and to the sports authority, and promised to take measures within the fan-club to prevent such events from happening again (*Apology* condition).
**Justice concerns.** Participants' justice concerns were assessed in this study by asking them "To what extent is it important to you that the victims are satisfied?" (i.e., about their compensation concerns; see Darley & Pittmann, 2003; Gromet et al., 2012). They had to answer this question on a seven-point Likert scale (1 = Not at all, 7 = Absolutely; $M = 5.93$, $SD = 1.42$). Initial analyses indicated our collective apologies manipulation tended to influence this measure such that participants' compensation concerns tended to be lowered by collective apologies ($M_{No\; Apology} = 6.19$, $SD_{No\; Apology} = 1.28$; $M_{Apology} = 5.67$, $SD_{Apology} = 1.52$), $F(1,94) = 3.29$, $p = .073$, $\eta^2_p = .03$. However, this relationship between both our independent variables does not preclude a test of their interactive effects (if any; see Shieh, 2010).

**Dependent variables.**

**Manipulation check.** At the end of the questionnaire, participants were asked if, according to what they had read, the fan-club had offered official apologies after the incident (1 = Not at all, 7 = Absolutely; $M = 3.63$, $SD = 2.61$).

**Collective punishment.** In the present studies, support for collective punishment was measured by asking participants: "According to you, how severe should be the punishment inflicted upon all the members of the group?" (1 = Not severe at all, 7 = Extremely severe; $M = 4.5$, $SD = 1.7$).

**Results**

**Manipulation check.** A full-factorial ANCOVA was performed on our manipulation check with Collective apologies (with No Apology and Apology conditions respectively coded -1 and +1) and Justice concerns (standardized scores) as independent variables. Results indicated that Collective apologies increased the extent to which participants perceived that such apologies had indeed been offered ($M_{No\; Apology} = 1.44$, $SE_{No\; Apology} = .202$; $M_{Apology} = 5.89$, $SE_{Apology} = .2$), $F(1,92) = 245.09$, $p < .001$, $\eta^2_p = .73$. No other effects were significant,
$F_s < 2.54, ps > .11$. Thus, our manipulation of collective apologies has proven efficient and has been used as such in the following studies.

**Collective punishment.** The same analysis was performed on our measure of support for collective punishment. Results indicated that the collective apologies' main effect was marginal, such that they tended to reduce support for collective punishment ($M_{\text{No Apology}} = 4.69, SE_{\text{No Apology}} = .222; M_{\text{Apology}} = 4.15, SE_{\text{Apology}} = .221), F(1,92) = 3.03, p = .085, \eta^2_p = .03$.

Further, the justice concerns' main effect was significant, such that they increased support for collective punishment, $F(1,92) = 17.810, p < .001, \eta^2_p = .16$. Finally, and most importantly, the interaction effect was significant (see Table 1 and Figure 1), $F(1,92) = 7.23, p = .009, \eta^2_p = .07$. Planned comparisons indicated that, in the absence of collective apologies, justice concerns increased support for collective punishment, $F(1,92) = 20.43, p < .001, \eta^2_p = .18$, which was no longer the case when collective apologies had been offered, $F(1,92) = 1.41, p = .238$. Additional analyses indicated that, when justice concerns were relatively low (-1 SD), support for collective punishment was rather low and unaffected by collective apologies $F(1,92) = .48, p = .491$. However, when justice concerns were relatively high (+1 SD), support for collective punishment was reduced in the presence of collective apologies, $F(1,92) = 10.17, p = .002, \eta^2_p = .10$.

**Discussion**

The results of Study 1 indicate that an increase in one's justice concerns (such as measured by participants' concern over the compensation of the victims) may increase one's tendency to support the punishment of an entire group, even if innocent. Further, it appears that a group's collective apologies can reduce this effect, thereby hindering one's tendency to extend the punishment from the offender to his/her entire group. Moreover, it appears collective apologies reduce support for collective punishment when justice concerns are high, that is, when the group is most in need of dissociating from the offenders. Thus, this research
helps understand the conditions under which justice concerns increase support for collective punishment, and indicate collective apologies might hold people back from imposing a collective punishment upon a group of innocent people when their need to restore a sense of justice is high. While these results are encouraging, this study suffers a major limitation: it was only quasi-experimental and this which might question the causality of these effects. In order to overcome this limitation, a second study was designed.

Study 2

While the results of Study 1 are encouraging, we wanted to replicate these findings and provide further evidence of our contention. In order to do so, we used in Study 2 a fully experimental design and focused yet on another justice concern: deterrence of future offenses (Miller & Vidmar, 1981). As a matter of fact, this justice concerns appears to be of particular relevance to the present issue given that deterrence has often been considered as a main justification for collective punishment (e.g., Heckathorn, 1988, 1990; see also Gollwitzer et al., 2014). A closer look at the role played by deterrence concerns in collective punishment and the effect of collective apologies could therefore help understand its particular relevance to the field.

Thus, in Study 2, we used the same paradigm as in Study 1, manipulated both justice concerns and collective apologies, and measured support for collective punishment. Here again, we expected that participants' justice concerns would increase support for collective punishment, but only in the absence of collective apologies. When the group offers collective apologies, this effect should be reduced.

Method

Participants. Participants of Study 2 were recruited among students of a large university, and invited by e-mail to voluntarily answer an online questionnaire on the way people perceive and judge different types of offenses. Following recommendations made at the time
we ran this study (see Simmons, Nelson, & Simonsohn, 2013), we aimed at 40 to 50 participants per condition, and stopped data collection once 160 participants completely filled in the questionnaire. Among these 160 participants, 46 participants failed to correctly report the information provided in the aggression vignette (see below), and final analyses were therefore run on a sample of 114 participants only (77 women and 37 men; $M_{\text{age}} = 26.33$, $SD_{\text{age}} = 8.53$).

**Procedure.** The procedure of Study 2 was similar to that of Study 1: Participants of this study were presented with the same (allegedly true) case of aggression, and were asked to answer some questions about their impressions of the situation. They were randomly assigned to one of the four conditions of a 2 (Apology vs. No apology) by 2 (Justice concerns: Low vs. High) experimental design. Collective apologies and justice concerns were manipulated by information given within the report of the aggression, and participants' support for collective punishment was assessed thereafter. At the end of the study, participants were thanked and debriefed.

**Independent variables.**

**Justice concerns.** In this Study, participants' justice (deterrence) concerns were manipulated through re-offense likelihood (see Darley et al., 2000; see also Oswald, 2009; Lloyd-Bostock, 2000). Specifically, they were told that, following this incident, the sports authorities' decided to place security cameras around the stadium and to limit the amount of alcoholic beverages sold during Hockey games. Further, it was stated that this decision had been saluted by various security agencies "... because such measures had proven sufficient in reducing the number of violent incidents during Hockey games" (Low Justice concerns condition), or "... even if such measures were not sufficient in reducing the number of violent incidents during Hockey games" (High Justice concerns condition). Thus, these two conditions only differed in the extent they suggested future offenses were likely to happen,
and we expected this manipulation would affect one’s justice concerns through a heightened concern over deterrence of future offenses.

**Collective apologies.** After this manipulation of participants' punishment motive, we manipulated collective apologies as in Study 1.

**Dependent variables.**

**Manipulation checks.** At the end of the questionnaire, participants were simply asked to indicate if, according to the description of the aggression, the fan-club had offered official apologies or not, and if the measures taken by the sports authorities were efficient or not.

**Collective punishment.** Support for collective punishment was assessed as in Study 1 ($M = 3.44$, $SD = 1.48$).

**Results**

**Manipulation checks.** As indicated above, initial analyses showed that 46 participants failed to correctly report the information provided in the description of the aggression. Interestingly though, it appears that only few participants (10/46) were mistaken about the presence (or absence) of collective apologies, and that most of these 46 participants (39/46) failed to correctly report information about the effectiveness of the measures taken by the sports authorities. This indicates our manipulation of collective apologies was rather successful, while that of justice concerns was less efficient. Because their answers could not be considered as valid, all these 46 participants were removed from subsequent analyses which were therefore performed on those participants who correctly recalled the information they were provided with.5

**Collective punishment**

A full-factorial ANOVA was performed on support for collective punishment with collective apologies (*No Apology* and *Apology* conditions respectively coded -1 and +1) and justice concerns (*Low* and *High* conditions respectively coded -1 and +1) as independent
variables. While no main effect of collective apologies was found, $F(1,110) = 1.75, p = .189$, results indicated that justice concerns tended to increase support for collective punishment ($M_{Low} = 3.17, SD_{Low} = 1.62; M_{High} = 3.62, SD_{High} = .1.36), F(1,110) = 3.59, p = .061, \eta^2_p = .03$. The 2-way interaction effect was also marginally significant (see Table 1 and Figure 2), $F(1,110) = 3.59, p = .061, \eta^2_p = .03$. Planned comparisons were nevertheless performed to test for our hypothesis (see Rosenthal & Rosnow, 1985). Such analyses revealed that justice concerns increased support for collective punishment in the absence of collective apologies, $F(1,110) = 6.54, p = .012, \eta^2_p = .06$, which was no longer the case when collective apologies had been offered, $F(1,110) = 0, p = 1.6$. Additional analyses indicated that, when justice concerns were Low, support for collective punishment was rather low and unaffected by collective apologies, $F(1,110) = .14, p = .710$. Further, when justice concerns were High, support for collective punishment was significantly lowered following collective apologies, $F(1,110) = 6.3, p = .014, \eta^2_p = .05$.

**Discussion**

Study 2 provides further support for our hypothesis. In this study, we followed the procedure of Study 1, but we focused this time on participants' concerns over deterrence of future offenses as a proxy for their justice concerns. Results once again supported our claim and showed that, in the absence of collective apologies, justice concerns increased people's tendency to extend the punishment from the initial offenders to the entire group they belong to, even though the group is innocent. In itself, this result confirms previous considerations regarding justifications for collective punishment and its link to deterrence concerns (see Heckathorn, 1988, 1990). Further, and most importantly, we have found that people refrain from doing so in the presence of collective apologies. Interestingly, analyses also showed that collective apologies mostly reduce support for collective punishment when justice concerns were high.
That said, this study suffers from at least three limitations. Firstly, the manipulation of participants’ justice concerns was rather unsatisfactory (as indicated by the high rate of mistaken participants), and a stronger manipulation of justice concerns may be necessary to correctly test for our contention. Secondly, some expected effects were only marginally significant, which might be due (among others) to a lack of statistical power. Accordingly, a more powerful study would help determine the validity of past findings. Finally, this study (as well as Study 1) focused on a case of intergroup aggression that might be considered rather inconsequential. Indeed, the offense considered here (an aggression leading to the injury of two sports-fans) might be relatively less outrageous than those for which collective apologies are often provided and that have been studied in the past (e.g., Brown, Wohl, & Exline, 2008; Philpot & Hornsey, 2008). Thus, one might believe the effects observed until now to only hold as long as the offense is not too severe (see Blatz & Philpot, 2010; Hornsey & Wohl, 2013; Wohl et al., 2011). Nevertheless, we would contend that an increase of the offense's severity should rather lead to greater effects of collective apologies, for it increases one's concerns over giving the offenders their just-deserts (e.g., Carlsmith, Darley, & Robinson, 2002). Thus, in order to provide stronger evidence of our hypothesis, and to overcome the potential limitations of the previous studies, we decided to run an additional study focusing on this third justice concern.

**Study 3**

Study 3 aimed at showing once again that collective apologies' would moderate the effects of justice concerns, while overcoming the limitations of Studies 1 and 2. In order to do so, we based the sample size we needed on power calculations (instead of a 50-participants-per-cell rule of thumb; e.g., Simmons et al., 2013) in order to overcome potential limitations related to lack of statistical power. Further, this study was led among a culturally different sample (US participants, instead of Swiss participants) to which we submitted a different case
of intergroup aggression (that of an embassy attack in a tense international context, instead of an aggression occurring in a sports context; see Berent et al., 2016a). Finally, we focused in this study on just-deserts concerns as a proxy of participants' justice concerns (e.g., Carlsmith et al., 2002; Darley & Pittman, 2003). Following our rationale, we expected support for collective punishment to increase along with justice concerns, and collective apologies to reduce this effect.

Method

Sample size determination. In order to determine the sample size we might need to fully trust our analyses, we first determined the size of the effect we were interested in. In Studies 1 and 2, the predicted interaction effect's had small-to-medium effect sizes ($f^2 = .28$ and $f^2 = .18$, respectively). Based on this information, we estimated the interaction effect of Study 3 would fall somewhere between the two, and decided to retain $f = .20$ as a plausible estimate of the effect size under study.

Secondly, as Studies 1 and 2 only achieved rather weak power (77.49% and 47.82%, respectively), we computed a priori the required sample size to test for such effect under a significance level of $\alpha = .05$ and with a statistical power of $\beta = .95$. This calculation was performed using G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007), and a total sample size of $N = 327$ was recommended. Anticipating that we might need to remove some participants from the sample (e.g., because they might fail attention checks), we finally decided to round up this number to $N = 350$.

Participants and design. Three hundred and fifty US participants were therefore recruited for this study and randomly assigned to one of the four conditions of a 2 (Apologies vs. No apology) by 2 (Justice concerns: Low vs. High) experimental design. Among these 350 participants, 14 failed to adequately respond to an attention check designed to identify those participants randomly responding to the questionnaire without paying attention to the
questions asked (see below). After removing these participants from the database, the final sample comprised 336 participants (197 men and 137 women –2 participants indicated they belonged to another gender; 15.8% were students, 58.9% were employees, 14.9% were both students and employees, 10.4% were neither student nor employee; $M_{age} = 32.29$, $SD_{age} = 10.80$).

**Procedure.** This study was conducted online, and participants were recruited via Prolific Academic's internet platform to take part in it. They were compensated 0.5 £ for their 5-minutes participation (i.e., on the basis of a 6£ hourly rate). This study was described as a survey on their opinion about different international conflicts. Once they accepted to take part in the study, participants were invited to carefully read a (fictitious) news report elaborated in such way that it appeared to have originally been posted on the website of a large US news network (i.e., CNN). This news report described the attack of an embassy that occurred in the context of on-going international tensions (see Berent et al., 2016). Specifically, it described the situation of two neighbor countries in Caucasia (Bachtaran and Abkhazia) between which historical tensions had led to the point where the United Nations and other non-governmental organizations decided to keep this region under particular surveillance. Further, the news report indicated that, a couple of months before this study was run, hostile anti-Abkhazi demonstrations took place in Bachtaran's capital city and that, on that occasion, some demonstrators attacked the Abkhazi Embassy. Following these events, both Abkhazia and the international community condemned the attack, and the latter was currently considering imposing political, social, and/or economic sanctions upon Bachtaran and its population. Following the presentation of this news report, participants were invited to provide their opinion about these events.

**Independent variables.**
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Justice concerns. In this study, participants' just desert justice concerns was manipulated by varying the severity of the offense (e.g., Carlsmith et al., 2002). Specifically, in the news report section describing the attack, it was indicated that the assailants "... invaded the embassy, scared the security agent away, sprayed graffiti on the walls, and broke some windows before leaving" (Low Justice concerns condition), or "... invaded the embassy, lynch to death four innocent civil servants (including the Abkhazi ambassador), injured ten security agents, and set the place on fire before leaving" (High Justice concerns condition).

Collective apologies. The manipulation of collective apologies followed that used in other studies (see Berent et al., 2016a). Specifically, right after the description of the attack, the news report indicated that a press conference gathering various political and popular representatives of Bachtaran (including its President) took place in Khashuri. Participants read that, on that occasion, "... the President did not comment on these events." (No Apology condition), or that "... the President solemnly apologized for what happened: On behalf of the country of Bachtaran and its population, he expressed his deep regret for these events, apologized to Abkhazia, and promised everything would be done in order to prevent similar incidents in the future." (Apologies condition).

Dependent variables.

Manipulation and attention checks. Two manipulation checks were introduced in the questionnaire. Specifically, the perceived seriousness of the offense was assessed asking participants to indicate how severe they thought the embassy attack was (1 = Not severe at all, 7 = Extremely severe; $M = 4.02, SD = 1.97$). Further, the perception of apologies was assessed asking participants to indicate if the Bachtaran's authorities had officially apologized for the attack (1 = Not at all, 7 = Absolutely; $M = 3.95, SD = 2.49$).
As mentioned before, we additionally introduced an attention check to identify participants who would go answering randomly through the questionnaire, and all participants who provided an answer to this question ($N = 14$) were removed from the analyses.

**Collective punishment.** Before measuring support for collective punishment, participants were reminded the International Community was considering the possibility of taking action against Bachtaran. Then, participants were asked how severe the punishment should be, and how severe should it be in order for it to be "Fair" and "Legitimate" (3 items; $1 = \text{Not severe at all}, 7 = \text{Extremely severe}$). Answers to these three items were aggregated in a unique score of support for collective punishment ($\alpha = .95; M = 2.93, SD = 1.54$).

**Results**

A full factorial 2 (Collective apologies: No apologies vs. Apologies; respectively coded -1 and +1) by 2 (Justice concerns: Low vs. High; respectively coded -1 and +1) ANOVA was performed on all dependent variables.

**Manipulation checks.**

*Perceived severity of the offense.* Results indicated that the main effect of collective apologies was marginally significant, and that collective apologies somewhat reduced the perceived severity of the offense ($M_{\text{No apology}} = 4.27, SD_{\text{No apology}} = 2.00; M_{\text{Apologies}} = 3.78, SD_{\text{Apologies}} = 1.91$), $F(1,332) = 3.47, p = .064, \eta^2_p = .01$. We will not discuss this effect many further, but this unexpected result might in itself be an indication of the usefulness of collective apologies following an offense, and future research could further investigate the mitigating role of collective apologies on perceptions of an offense's seriousness.

More relevant to our concerns, results indicate a main effect of the manipulation of just-desert justice concerns, such that the attack was perceived as more severe when justice concerns were High ($M = 5.45, SD = 1.39$) rather than Low ($M = 2.72, SD = 1.44$), $F(1,332) =$
308.31, \( p < .001, \eta^2_p = .48 \). Further, the interaction term was not significant, \( F < .122, p > .728 \). We therefore consider the manipulation of justice concerns as successful.

Perception of apologies. Results indicate a main effect of our manipulation of collective apologies, such that Bachtaran was perceived to have apologized to a greater extent when it indeed did so (\( M_{\text{No apology}} = 1.96, SD_{\text{No apology}} = 1.33; M_{\text{Apologies}} = 5.78, SD_{\text{Apologies}} = 1.81 \)), \( F(1,332) = 472.85, p < .001, \eta^2_p = .59 \). No other effects were significant, \( Fs < .18, ps > .673 \). We therefore consider the manipulation of collective apologies as successful.

Collective punishment.

Analyses revealed collective apologies had no main effect of support for collective punishment, \( F(1,332) = 2.62, p = .106 \). Justice concerns, in contrast, increased support for collective punishment, such that collective punishment was higher when just-deserts concerns were High (\( M = 3.39, SD = 1.54 \)) rather than Low (\( M = 2.51, SD = 1.41 \)), \( F(1,332) = 29.56, p < .001, \eta^2_p = .08 \). More importantly, the interaction term was significant (see Table 1 and Figure 3), \( F(1,332) = 4.53, p = .034, \eta^2_p = .01 \). Planned comparisons indicated that, in the absence of collective apologies, justice concerns increased support for collective punishment, \( t(1,332) = 5.26, p < .001, \eta^2_p = .08 \). When collective apologies were offered, this effect was reduced, \( t(1,332) = 2.38, p = .018, \eta^2_p = .02 \). Additional analyses reveal that, when justice concerns were Low, support for collective punishment remained low and unaffected by collective apologies, \( t(1,332) = .37, p = .713 \). When justice concerns were High, in contrast, collective apologies significantly reduced support for collective punishment, \( t(1,332) = -2.60, p = .010, \eta^2_p = .02 \).

Discussion

Study 3 provides further evidence in favor of our hypothesis while overcoming a number of potential limitations in Studies 1 & 2. Indeed, in this study, we considered the potential moderating role of one's just-deserts justice concerns and, once again, we found that
collective apologies moderated the effect of justice concerns on support for collective punishment. We also observed once again that collective apologies were most necessary (and effective) when such justice concerns were high. These effects were found using yet a different case of intergroup aggression (an embassy attack leading to human casualties), within a culturally different sample than the one considered in Studies 1 & 2, and with an appropriate sample size. This study thereby addresses a concern regarding the generalizability of previous findings and demonstrates the effects under study are not a methodological artifact. Thus, the convergent evidence provided by this study to the previous ones strengthens our confidence in the fact that people's justice concerns might lead them to support the collective punishment of innocent people, and that collective apologies might hinder this tendency.

General Discussion

This paper sought to study the determinants of people's support for collective punishment of innocent group members, and to investigate the role of one's justice concerns in the emergence of this phenomenon. Further, we aimed at testing the potentially moderating role of collective apologies. Specifically, we tested the hypothesis according to which collective apologies could help dissociate the group from the offenders, and that people would refrain from extending their punitive motivation from the offenders to their entire group after the group apologized. Three studies were conducted to address this question, and all of them demonstrated the validity of our hypothesis. While we focused on a different justice concern in each of these studies (compensation for Study 1, deterrence for Study 2, and just deserts in Study 3), all of them provided similar results, thereby demonstrating that our reasoning holds somewhat independently of the justice concern considered. Further, our hypothesis has been validated across culturally different samples (i.e. among Swiss and US participants), and
across different research paradigms (an intergroup aggression in a sports context or an embassy attack leading to the death of civilians).

Before discussing the theoretical implications of these studies, several methodological questions could be discussed. The first one regards the sample-size and the rather weak power achieved by some of these studies. Indeed, out of the three studies, the first two were under-powered which somewhat limits the confidence one could have in the conclusions derived from these studies. One of the main reasons for conducting a third study was to overcome this limitation and test our hypothesis in a well-powered study. As it turned out, we replicated our main findings which strengthens our theoretical claim and increases our overall confidence in the existence of the effect under study.

Another limitation one could want to discuss is the fact that these studies were all "vignette studies" in which participants were to judge allegedly true offenses but were never really confronted to these offenses. One could therefore wonder if these effects would hold and replicate in more "engaging" situations (if they were to directly witness an offense, for instance). Regarding this question, it should firstly be noted that most research this paper draws upon has used vignette studies as well, and that such procedure is probably the most common one used in the field to investigate people's reactions to both an offense and collective apologies (e.g., Alter & Darley, 2009; Brown et al., 2008; Carlsmith et al., 2002; Darley et al., 2000; Lickel et al., 2003; Philpot & Hornsey, 2008; Steele & Blatz, 2014). Secondly, one could expect that using methods which increase participants' implication might generally lead to an increase in the factors and concerns underlying punishment reactions (i.e., moral outrage, anger, etc.). Given variations in such concerns were systematically varied in the present research (e.g., through the offense severity), and that an increase in these factors only led to an increase both in support for collective punishment and in the effectiveness of collective apologies, one might expect that using more "involving" techniques would increase
the magnitude of the effects observed and not necessarily change the very nature of the processes under study. Future research could therefore address this question and determine if the use of more "involving" techniques would increase (or decrease) the effects under study.

Regarding the theoretical implications of these studies, their conclusions are relevant to numerous fields of research. For instance, one of the first important conclusion to draw from this set of studies relates to the determinants of support for collective punishment itself. As stated in the beginning of this paper, understanding such form of punishment remains somewhat of a psychological puzzle. Indeed, such a way of restoring justice implies the punishment of innocent people, which is at odds with the justice principles prevailing in our societies and might intuitively seem unjust. Nevertheless, such forms of punishment regularly occur, and past research has already shown that the association to the offender is critical in the emergence of collective punishment (e.g., Berent et al., 2016a; Gaertner et al., 2008; Sjöström & Gollwitzer, 2015; Stenstrom et al., 2008). This set of studies adds to past research by showing that support for collective punishment varies as a function of one's justice concerns. Specifically, these studies show how an increase in one's need to restore justice increases one's tendency to punish a group of innocent people associated to the offender through their mere group membership. To our knowledge, these studies are the first experimental demonstrations of the role played by one's justice concerns in the emergence of collective punishment. As such, these studies help understand the very basis of people's tendency to punish innocent people after an offense committed by a member of their group, and illustrate how rather unjust measures may paradoxically stem from a need to restore a sense of justice.

The second point we want to outline here regards the fact that collective apologies might reduce collective punishment, and the processes by which this might occur. Following what we know of collective punishment, collective apologies might impact collective punishment through two distinct mechanisms: by fully addressing the justice concerns raised...
by the offense, or by dissociating the innocent group members from the offender. Depending on the function one attributes to collective apologies, two opposite predictions could be formulated regarding the role of justice concerns: on the one hand, if collective apologies help satisfy important justice concerns and reduce one’s retributive tendencies (e.g., Wenzel et al., 2008, 2010; see also Okimoto & Wenzel, 2008), an increase of such concerns should reduce the effectiveness of collective apologies. This is to be expected because collective apologies are an imperfect means to satisfy one's need for justice and, as this need increases (because the offense is severe, for instance), collective apologies should be more elaborate and convincing in order to be effective (e.g., Blatz & Philpot, 2010; Horsey & Wohl, 2013; Wohl et al., 2011). Put in other words, collective apologies might only be effective if provided by a group one can trust, or if other gestures contribute to the idea the group is willing to reform and, the stronger the justice concerns, the harder it might be to reduce one's punitive tendencies by only offering collective apologies (Blatz & Philpot, 2010; Horsey & Wohl, 2013; Wohl et al., 2011). On the other hand, if collective apologies help a group of innocent people dissociate from the initial offender, then one's tendency to extend the motivation to punish the offender to his/her entire group should be hindered by collective apologies, and this would be particularly the case when justice concerns are high. As our findings indicate, it appears collective apologies reduce collective punishment rather because of their ability to dissociate the group from the offender than because of their ability to satisfy important justice concerns. As such, this adds to the literature on the potential effects of collective apologies, and helps understand why and when collective apologies might reduce punitive tendencies directed at the offender's group (e.g., Hornsey & Wohl, 2013). Future research could provide additional evidence in favor of our contention by showing for instance that, if collective apologies only help a group dissociate from the offenders and are insufficient to address the concerns raised by the offense, then one's need to restore a sense of justice and see someone
punished in the aftermath of an offense might remain intact. This could be shown by focusing on the potentially mediating role of both these variables (need for justice and punitive motivations), and/or by showing how the non-satisfaction of such needs will further bias other justice judgments (e.g., they could lead to harsher judgments in unrelated cases). Future research could also show the importance of the group’s association to the offenders in such processes, and show how one’s heightened motivation to restore a sense of justice only leads to the punishment of groups closely associated to the offenders (see Berent et al., 2017).

A final relevant element we want to mention here is the fact that the studies presented here focused on third-parties' reaction to collective apologies. While past research has mostly focused on the reactions of (in-)direct victims support for collective punishment (e.g., Gaertner et al., 2008; Lickel, Miller, Stenstrom, Denson, & Schmader, 2006; Lickel, Schmader, & Hamilton, 2003; Stenstrom et al., 2008) and reaction to collective apologies (e.g., Hornsey & Wohl, 2013), one might question the usefulness of studying the effect of collective apologies on third-party observers. As we have said above, the study of third-party's reactions help understand lay people's sense of justice and reactions to an offense. Indeed, their justice judgments can be considered most elementary and basic reactions people could have, in the sense they are not under the influence of social identity and status concerns (e.g., Shnabel & Nadler, 2008) or any (vicarious) revenge motive (e.g., Gollwitzer et al., 2014) victims could additionally have. Further, and as we have also stated, collective apologies in a setting where both the offense and the apologies are highly publicized. In such context, not only does the reactions of the offense's victims matter in the restoration of justice and social harmony, so does the reaction of the public at large (lay-people, the media, the judges, members of the jury, etc.; Tavuchis, 1991). As a matter of fact, the reaction of third-parties might even determine in part what is considered appropriate in justice restoration, and might even influence the reaction of the victims themselves (see Bennett & Dewberry, 1994;
Risen & Gilovitch, 2007). All these elements point to the importance of studying third-party's support for collective punishment and their reaction to collective apologies.

Despite the relevance of the study of third-parties' justice judgments, this raises the question of the reactions of people who feel more close to the victims than lay people do, and one might wonder how (in-)direct victims of the offense might react in such situation. On the basis of these studies (and especially Study 1), one might expect that one's proximity (or identification with) the victims of an offense increases punitive tendencies and support for collective punishment (see also Brown et al., 2008). Under such circumstances, the effectiveness of collective apologies might increase as well. However, victims of injustice are often concerned over their social status and dignity (Shnabel & Nadler, 2008), and they might be particularly sensitive to risks of exploitation and deception (see Gollwitzer, Rothmund, Pfeiffer, & Ensenbach, 2009). Thus, contrary to what might happen among third-parties, one's trust in the apologizing group might be determinant among those who feel close to the victims, and the offending group's ulterior motives might play a crucial role in the effectiveness of collective apologies (see for instance Brown et al., 2008). Future research should determine if these factors act as potential moderators of the effects of collective apologies on support for collective punishment.
Footnotes

1. Other justice concerns than these three might of course be enumerated (e.g., rehabilitation of the offender; restoration of the relationships between the victim, the offender, and the community at large; etc.). However, they are not discussed here as potential determinants of punitive reactions because they are not necessarily satisfied by the punishment of the offender (or can even be opposed to punishment). Indeed, instead of necessitating "punitive" measures, they might rather be satisfied by more "constructive" means (such as rehabilitation of the offender; Wenzel & Okimoto, 2016).

2. Following the suggestion of an anonymous Reviewer, and in order to make sure these three justice concerns were related to a more general need to restore a sense of justice, we conducted a Study during which 100 participants were invited to judge a case of intergroup aggression (see procedure of Study 1). We thereafter measured their motivation to see the victims compensated (i.e., their compensation concerns), their motivation to prevent future offenses (i.e., their deterrence concerns), and their motivation to see the offenders get what they deserve (i.e., their just-deserts concerns). We finally measured their more general need for justice (i.e., "How important is it to you that justice is done?"). Correlational analyses were performed on the 99 participants who entirely filled-in the questionnaire. Results indicated that all measures were significantly and positively correlated (correlations ranged from $r = .45$ to $.69$; all $p's < .001$). These results suggest all three justice concerns under study concur to create a general need for justice which must be satisfied in one way or another.
3. All the studies described in this paper have received approval from the Ethical Committee of the Psychology and Educational Sciences Faculty of University of Geneva.

4. In these studies, we also assessed the perceived legitimacy of collective punishment (see Berent, et al., 2016a, 2016b; Pereira, et al., 2015). As in past studies (Berent et al., 2016a, 2016b) and for reasons we still ignore, the pattern of findings for measures of perceived legitimacy were somewhat inconsistent across the studies presented here. Thus, we will only report here the results on support for collective punishment (or the desired severity of collective punishment), while the results observed on perceived legitimacy are described in the supplementary materials to this paper (see online supplementary material).

5. Additionally, it should be noted here that the interaction effect on support for collective punishment was non-significant when including those participants who failed the manipulation checks, $F(1,156) = 1.226, p = .270$.

6. These uncommon values for $F$ and $p$ are due to the fact that support for collective punishment is virtually identical in the two conditions compared. After a thorough verification of the database and analysis procedures, we have found no anomaly and consider this surprising finding as a pure coincidence.
References


Figure 1. Support for collective punishment as a function of participants' Justice concerns (i.e., compensation concerns) and collective apologies (error bars represent ±1 standard-error; Study 1).
Figure 2. Support for collective punishment as a function of participants' justice concerns (i.e., deterrence concerns) and collective apologies (error bars represent ±1 standard-deviation; Study 2).
Figure 3. Support for collective punishment as a function of participants' justice concerns (i.e., just-deserts concerns) and collective apologies (error bars represent ±1 standard-deviation; Study 3).

Tables

Table 1. Descriptive statistics for support for collective punishment in Studies 1 to 3, as a function of Justice concerns and Collective apologies.

<table>
<thead>
<tr>
<th></th>
<th>Study 1</th>
<th></th>
<th>Study 2</th>
<th></th>
<th>Study 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Justice concerns</td>
<td>M = 3.59</td>
<td>M = 5.80</td>
<td>M = 3.09</td>
<td>M = 4.14</td>
<td>M = 2.46</td>
<td>M = 3.68</td>
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<tr>
<td></td>
<td>SE = .36</td>
<td>SE = .30</td>
<td>SD = 1.41</td>
<td>SD = 1.21</td>
<td>SD = 1.43</td>
<td>SD = 1.52</td>
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<tr>
<td>Apologies</td>
<td>M = 3.90</td>
<td>M = 4.39</td>
<td>M = 3.25</td>
<td>M = 3.25</td>
<td>M = 2.55</td>
<td>M = 3.08</td>
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<tr>
<td></td>
<td>SE = .28</td>
<td>SE = .33</td>
<td>SD = 1.82</td>
<td>SD = 1.35</td>
<td>SD = 1.42</td>
<td>SD = 1.51</td>
</tr>
</tbody>
</table>

Notes: Given the Means of Study 1 were only estimated at relatively High (+1 SD) and Low (-1 SD) levels of Justice concerns, Standard-Errors (SE) are provided along with the Means (M). Given the means of Studies 2 and 3 were actually observed, Standard-Deviations (SD) are provided along with the Means (M).