

Saving face? When emotion displays during public apologies mitigate damage to organizational performance



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ABSTRACT

In the wake of corporate transgressions and scandals, how do apologizers' expressed emotions affect investors' perceptions of the organization in question? We analyzed the market effects of normative versus deviant facial affect expressed during apologies for corporate wrongdoing. Archival data revealed that the expression of deviant affect was associated with decreased investor confidence in the form of negative stock market returns; adverse financial effects persisted up to three months post-apology. Moreover, this effect was exacerbated when a company representative with greater responsibility within the organization delivered the apology. Experimental data further revealed that third parties interpreted deviant affect (smiling) as a signal of insincerity, which reduced their confidence in these representatives' organizations. Ultimately, we find that subtle emotion expressions are detected by stakeholders, signal insincerity, and have important consequences for organizations. We suggest that organizations must carefully consider the nonverbal behavior of apologetic representatives in the wake of transgressions.

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1. Introduction

When a company engages in wrongdoing, an apology is expected, but not all apologies are successful at repairing public perceptions. For example, following a poorly communicated price increase for Netflix's video-streaming service, CEO Reed Hastings apologized publicly in an effort to win back the favor of his angry customers. The apology, however, seemed perfunctory at best. As he said "I'm sorry", Hastings smiled broadly. Ultimately, his contrition was poorly received, and customers continued to cancel their subscriptions in droves: in less than three months, the company lost more than half of its market value (Liedtke, 2011). In contrast to Hastings's apology on behalf of Netflix, CEO Michael McCain of Maple Leaf Foods issued a more sincere apology for the 20 deaths and 56 illnesses caused by listeria found in their packaged meat products (Public Health Agency of Canada, 2008). McCain expressed genuine sadness during his apology for the harm his company had caused. Despite such a severe transgression, Maple Leaf Foods quickly returned to better-than-expected profits in the financial quarters that followed (Owram, 2009; Wilson, 2011).

Apologies such as these are commonly issued following transgressions by organizations. Company representatives take great pain to 'express the right tone' during apologies for corporate transgressions in an effort to repair damage and restore trust to investor relations (De Greiff, 2006; Kim, Ferrin, Cooper, & Dirks, 2004; Tripp, Bies, & Aquino, 2007). Although considerable research has investigated *when* one should apologize (Wohl, Hornsey, & Philpot, 2011) and *what* one should say to apologize effectively (Scher & Darley, 1997), little research has studied how one should *behave* when making apologies.

In the present research, we investigated how the emotions that organizational representatives express during public apologies impact their company's stock market performance. Drawing on theories about normative expressions of affect, we argue that relative to normative expressions of emotion during apologies, i.e. sadness, deviant emotions such as happiness can signal insincere remorse and are likely to be punished by investors.

2. Normative emotion expression during apologies

When one individual slights another, there are clear benefits to both parties when the transgressor apologizes. If well-intentioned and properly executed, an apology can reduce sanctions applied to

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the transgressor, mitigate negative evaluations of their character, reduce victims' anger, and even lead to forgiveness (e.g., Dhimi, 2012; Ohbuchi, Kameda, & Agarie, 1989; Scher & Darley, 1997). Research suggests that these benefits extend to the organizational level as well; when organizational representatives accept responsibility and express regret for a transgression, mock stakeholders evaluate a firm's reputation more positively, feel less anger, and report greater intentions to purchase goods from that firm (Coombs & Holladay, 2007; Decker, 2012; Joireman, Gregoire, Devezer, & Tripp, 2013; Pace, Fediuk, & Botero, 2010). In short, existing research strongly suggests that apologizing for a transgression is better for a company's reputation and performance than not.

However, existing research has failed to consider the importance of the nonverbal behavior that accompanies verbal apologies and which, we suspect, can decrease apologies' effectiveness. Nonverbal behavior in these apology contexts might include both body language (e.g., posture, hand gestures) and emotional expressions (e.g., sadness, happiness); we focus on the emotional facial expressions conveyed during apologies while simultaneously acknowledging that other nonverbal behavior might also have an effect on perceivers' impressions. Indeed, our interest in emotions is based on evidence highlighting the central role that these expressions play in the communication of social cues (e.g., Ambady & Rosenthal, 1992; Feinberg, Willer, & Keltner, 2012; Horberg, Kraus, & Keltner, 2013). In a day and age in which people obtain their news from television and online videos from news sources, the nonverbal behavior and emotional expressions of organizational representatives during apologies is subject to more scrutiny than ever before. Moreover, in the context of apologies, emotional expressions can be an important source of information about an expresser's underlying feelings and beliefs.¹ Therefore, in keeping with our interest in the effects of emotional expressions in these public contexts, we focus specifically on sadness and happiness, and investigate how people perceive companies whose representatives violate norms surrounding the expression of emotion during apologies.

2.1. Normative affect: sadness

Sincere apologies are highly emotional events for transgressors. Apologies are motivated by profound feelings of remorse, guilt, and/or shame for over-stepping a moral boundary (Fineman & Gabriel, 2010), and include congruent non-conscious facial expressions that reflect this internal state. Negative, low arousal affective states, such as remorse and shame, are expressed on the face in the form of variations on the universal emotional expression of sadness, and include upward and inward movement of the inner eyebrows (combined movements of the *corrugator* and inner *frontalis* muscles), and downward turning of the lip corners (resulting from contraction of the *depressor anguli oris* muscles; Ekman, Friesen, & Hagar, 2002; Keltner & Buswell, 1996; Keltner et al., 2015).

There are strong injunctive and descriptive norms (e.g., Cialdini, 2003; Cialdini, Reno, & Kallgren, 1990) surrounding the expression of sadness during apologies. As an injunctive norm, people tend to believe that apologizers *should* express sadness: in one study, even children reacted more negatively to a target who appeared to be happy following a transgression than to a target who showed remorse (Darby & Schlenker, 1982). As a descriptive norm, it is commonly inferred that apologizers feel sad (Arsenio & Lover, 1995). These expressions of sadness may be functional, enabling

transgressors to communicate that they no longer pose a threat and will not reoffend: Goffman (1971) suggested that apologies and the appropriate expression of affect such as regret and remorse signal that despite having transgressed, the offender does respect society's rules.

To summarize, research suggests the expression of sadness is congruent with people's expectations about what emotions should be and are expressed during apologies (affective congruence). Therefore, we expect that when apologizers express sadness, any decrease in performance following organization transgressions will be mitigated. We compare the effects of sadness expressed during apologies with happiness, an emotion that we argue violates people's expectations about emotion expressions during apologies.

2.2. Deviant affect: happiness

In contrast to sadness, happiness is signaled by the subtle contraction of the *orbicularis oculi* muscle surrounding the eyes, forming crow's feet, and more obviously by the *zygomatic major*—pulling the lip corners upward. It is considered non-normative to express happiness during an apology because it is diametrically opposed to sadness, remorse, and shame (e.g., Barrett & Russell, 1998). Such expressions run counter to the emotions we expect an apology to include; research suggests that children as young as 6 years old recognize the inappropriateness of expressions of happiness, versus sadness, by wrongdoers (Nunner-Winkler & Sodian, 1988; Smith, Chen, & Harris, 2010). Thus, the expression of positive affect while simultaneously saying "I'm sorry" should reflect poorly on third parties' perceptions of the expresser; such a deviant emotional expression may communicate a lack of respect for the apology recipient and reduce the effectiveness of the message (De Cremer & Schouten, 2008). There is evidence that targets who express deviant or incongruent emotion (affect that is inconsistent with social norms and expectations) are judged more harshly and observers prefer greater social distance from them, relative to targets who respond to emotional situations appropriately. Even people who express no emotion at all are judged more harshly than those who adhere to emotional norms (Szczyrek, Monin, & Gross, 2012).

Although observers certainly scrutinize the appropriateness of emotional responses, no research has explored the long-term effects of emotional norm violations, nor has any research done so within the context of organizations' apologies for transgressions. CEOs and other public figureheads represent the face of the organization, and research has found that investors are prone to making decisions based on the remarks of one representative (Fragale, Rosen, Xu, & Merideth, 2009; Kellerman, 2006). Thus, there is reason to expect that relative to normatively congruent emotions such as sadness, deviant emotions such as happiness expressed during apologies will yield unfavorable perceptions of the organization as well as the apologizer him/herself. We therefore hypothesize that investors will be less likely to back companies whose company representative expresses deviant affect (happiness) relative to normative affect (sadness) during a public apology.

3. The role of perceived sincerity

Why would affective deviance expressed by a company representative during an apology predict a decrease in investors' willingness to buy company stocks? We theorize that investors perceive expressions of inappropriate affect to reflect the apologizer's insincerity. While a furrowed brow and downturned lip corners can corroborate the verbal exposition of remorse, guilt, and/or shame, the lack thereof may give the observer concern that the

¹ Other evidence for emotion norms in apology contexts comes from the perspective of the victim. Rose, Nadler, and Clark (2006) find that victims are also expected to express appropriate levels of emotion, and that victims' emotional expressions impact observers' perceptions of them.

apology is not driven by genuine emotion (Ekman, 1992; Porter & ten Brinke, 2008; Smith, 2008). To the extent that people want and expect apologies to be motivated out of guilt and shame, an apology accompanied by sadness should be perceived to be sincere while an apology lacking sadness should be perceived to be insincere.

Research suggests that even the lack of emotion during an apology may be characterized as deviant (Szczurek et al., 2012), and the expression of happiness during an apology may be particularly concerning. Apologizers may desire to appear warm and likeable, which may lead them to express happiness at a time when they should appear sad. Beyond this unintentional mistake, a smile could actually constitute evidence of ‘duping delight’, indicating pleasure in lying, or *schadenfreude*, i.e. enjoyment at the misfortune of others (Ekman, 1992; Porter, Bhanwer, Woodworth, & Black, 2014). Such pleasure or enjoyment might be particularly unsettling to those who subscribe to the prescriptive moral norm that happiness should not come at the expense of others’ misfortune. Thus, the research on normative expectations surrounding emotion expression during apologies suggests that expressed sadness denotes the apologizer’s sincerity while happiness signals insincerity.

Furthermore, people who deliver insincerely remorseful apologies are perceived negatively. For example, individuals who provide perfunctory apologies are disliked and distrusted more than those who have committed similar transgressions but apologize sincerely (e.g., Darby & Schlenker, 1982, 1989; Exline, Deshea, & Holeman, 2007). Similarly, coerced apologies that are prompted or obligated by a third party are perceived to lack remorse, and lead to a greater dislike of the apologizer and a decreased desire to befriend that person, relative to offenders who offer a spontaneous apology (Risen & Gilovich, 2007). Indeed, apologies that are perceived as insincere may prompt the injured party to avoid or even punish the transgressor further (e.g., Fehr & Gelfand, 2010; Smith, 2008).

These public perceptions might have downstream consequences that reach farther than previously suspected, extending to people’s willingness to commit financial backing to these organizations. If people perceive company representatives to be insincere, they may be less willing to support these organizations and more motivated to sell off their shares after a transgression. In contrast, sincerity might buffer organizations from the financial fall-out of a transgression, discouraging shareholders from selling their stock despite the wrongdoing.

We thus investigate whether affective deviance is associated with lower levels of perceived sincere remorse, which in turn decrease investor confidence. We hypothesize that the negative effects of deviant emotions on organizational perceptions and performance will be mediated by third-party perceptions of the apologizer as insincerely remorseful.

4. The role of apologizer status

In addition to emotion expressions, we test whether apologies delivered by company representatives with more responsibility for the organization’s decisions will be perceived differently than those with less responsibility. Although this prescription has yet to be tested empirically, there is good reason to believe that decision-making responsibility moderates the effect of an apology. Observers attribute greater intentionality and selfishness to the immoral actions of individuals who are more responsible for the company’s decisions, compared to those who have less responsibility (Fragale et al., 2009). Further, if the CEO is indeed perceived as more responsible

(and hence more powerful), observers may feel relatively powerless—a psychological state that increases attention to others and promotes the accurate detection of emotion (Keltner, Gruenfeld, & Anderson, 2003). Thus, when company representatives express affective deviance and hold more responsibility for their organization’s decisions, their apologies may be perceived more negatively than those made by representatives who have less responsibility.

As a result of these increased negative perceptions, investors may have less confidence that the organization will recover from the transgression with this person leading the efforts. Therefore, we also explore whether the apologizer’s status within the organization will enhance the effect of a well-crafted apology and exacerbate the negative consequences of an inadequate one. Because Kellerman (2006) recommended that the CEO (rather than another representative) should apologize, reasoning that ultimate responsibility for transgressions falls upon leaders, we operationalize status by contrasting CEOs with other company representatives.

5. Overview of studies

We conducted two studies examining the reputational and financial fall-out of normative and deviant affect expressed during corporate apologies. In Study 1, we examined actual investor reactions, in the form of stock market gains and losses, to real apologies by high- and low-status organizational representatives as a function of normative (sadness) and deviant (happiness) emotional expression. In Studies 2a and 2b, we conducted experiments to examine whether observer perceptions of apology sincerity mediate the effect of emotional expression on investment intentions. We tested whether sadness expressed during an apology would protect companies from decreased investment intentions, relative to happiness (or no emotion, in Study 2a). In the experimental studies reported below, sample sizes were determined a priori and all conditions are reported (Simmons, Nelson, & Simonsohn, 2011).

6. Study 1: Organizational performance

In Study 1, we explored whether the apologizer’s facial affective expressions—normative versus deviant—predict decreased investment in the apologizing organization, above and beyond the verbal content of the apology. We tested our hypotheses in the context of an archival study of videos of corporate apologies made over a 5-year period. Further, apologies were provided by high (CEO) versus low (other, non-CEO representative) status individuals, allowing us to examine whether deviant expressions by CEOs were particularly damaging to organizational performance.

6.1. Method

6.1.1. Video retrieval

We selected videos of corporate apologies by searching Google news, Google video, and YouTube with combinations of the following search terms: apology, sorry, statement, video, public, press conference, and company. Our a priori criteria were to gather apologies stemming from five years of publicized corporate transgressions, between January 2007 to December 2011. This search yielded a list of 80 transgressions for which 37 apologies could be located on video. Of these apologies, 29 had data on abnormal returns in Eventus (see below; Cowan, 2007). All company representatives in these videos were male. In 16 cases a CEO apologized

while, in the remaining 13, another company representative delivered the message (e.g., Vice President; Managing Director).²

6.1.2. Coding

Two trained and reliable coders coded nonverbal and verbal elements of these apologies. They first coded emotional expressions using a procedure developed by Porter and ten Brinke (2008) based on the Facial Action Coding System (FACS; Ekman et al., 2002). Coders watched all videos without audio and were blind to verbal content and financial outcomes, examining each 1/30th second frame of video twice for the presence and duration of each of the seven universal emotions (happiness, sadness, anger, fear, disgust, surprise, contempt) in both upper and lower regions of the face. This level of analysis of upper and lower face coding is necessary to quantify subtle expressions that cannot be adequately described by full-face coding (Darwin, 1872; Porter & ten Brinke, 2008). In sum, the coders watched 90,583 frames of video, each of which was coded twice—once with attention to the upper face and again with attention to the lower face—for a total of 181,166 codes.

Because apologies varied in length ($M = 81.57$ s, $SD = 67.47$), we converted the duration of each emotional expression (in the upper and lower face) to a percentage of the apology by dividing each by the total duration of the apology. We examined the correlations between upper and lower face emotions to inform the creation of composite variables. While upper and lower face sadness were strongly correlated, $r(29) = .68$, $p < .001$, upper and lower face happiness were unrelated, $r(29) = .01$, $p = .95$. The lack of correlation between upper and lower face happiness is unsurprising, given the distinction between genuine, Duchenne smiles (upper and lower face) and falsified smiles (lower face only; Ekman, Davidson, & Friesen, 1990). As such, we present results for upper and lower face happiness separately. However, we combined upper and lower face sadness into a mean percentage, which we used to examine hypotheses related to normative affect in the following analyses. Following emotional facial expression coding, the two coders examined transcripts of each apology for the presence of each of five verbal apology elements, as defined by Scher and Darley (1997). All coders in this study were always blind to financial outcomes. Detailed information on these coding procedures can be found in the Appendix A.

6.1.3. Organizational performance

Eventus (Cowan, 2007) is an online software tool found on the Wharton Research Data Services (WRDS) website. This tool yields data that is commonly used to measure an organization's stock market returns relative to expectations in the recent past (Agrawal, Kishore, & Rao, 2006; Tellis & Johnson, 2007). We calculated expected returns for an organization based on the trajectory of their performance over a standard time period (between 255 and 46 days prior to the apology; Wade, Porac, Pollock, & Graffin, 2006). This estimation period preceded the date of the transgression in all but one outlying case in which an apology was greatly

delayed. Eventus subtracts the expected return from the actual return on the day or time period of interest. The extent to which these differences deviate from 0 (i.e., an abnormal return) indicates how much the apology provides new information about the value of the organization (Brown & Warner, 1985). We measured abnormal returns in percentages; negative returns indicate that the stock closed at a lower price than expected and positive returns, at a price higher than predicted. We conducted Eventus queries for each company independently, which provided us with data on each company's abnormal returns on the day of and day after the apology, as well as longer-term returns averaged over the 30, 60, and 90 days following the apology.

6.1.4. Control variables

We collected information about the number of days between the incident and apology, media mentions on the day before and day of the apology, measures of severity, duration of the apologizer's tenure with the firm, and Fortune 500 status as control variables.

6.1.5. Transgression severity

Previous research suggests victims are more likely to reject an apology when the transgression is severe (Bennett & Earwaker, 1994), and increased severity may increase pressure to issue an (insincere) apology. A trained coder rated severity on a scale from 1 (not at all) to 7 (very) scale based on media reports summarizing the transgression (inter-rater reliability was high, $r(11) = .75$, $p = .008$). We also obtained information about the cost of the transgression, which was available for 22 of the organizations (range: \$19 million to \$100 billion US; $M = \$10$ billion).

6.1.6. Media attention

Remorseless apologies might be scrutinized more carefully because they receive more media attention. To control for this possibility, we gathered data on the number of unique media mentions of the company on the day before and of the apology.

6.1.7. Apology delay

A longer delay between the transgression and the apology may make an apology seem less sincere or coerced. Thus, we recorded the number of days between the transgression and when the apology occurred, following Wirtz and Mattila (2004).

6.1.8. Tenure

An apologizer with a longer tenure might apologize more sincerely due to their longer-standing commitment to the organization. We obtained data on the duration of the apologizer's tenure with the organization, measured in years.

6.1.9. Organizational size

Larger companies may be less vulnerable to the effects of transgressions and more resilient to any detrimental effects of remorseless apologies (e.g., Jones, Jones, & Little, 2000). Thus, we considered whether organizations ranked on the Fortune 500 list would be less vulnerable to the effects of poor apologies than unranked organizations, consistent with research suggesting that ranked companies have a stronger initial reputation and more resources to draw upon.

No control variables except the company's Fortune 500 status affected financial outcomes (see Appendix A). The analyses that follow do not include control variables.

² To determine whether our sample is representative of the broader set of apologies that occurred, we coded the severity and determined the industry sector of all 80 apologies. The severity of the apologies we analyzed ($M = 4.65$, $SD = 1.27$) was greater than the remaining apologies ($M = 3.77$, $SD = 1.50$), $t(77) = 2.48$, $p = .015$: companies may issue a more visible apology for a severe transgression, relative to a mild one. Importantly, however, the recorded apologies included in our analyses did not differ in severity from the 8 recorded apologies that were excluded due to the lack of Eventus data, $p > .40$. We further examined whether the sample of apologies that we analyzed differed from the rest of the known apologies in terms of transgression type (competence versus ethical transgressions). Chi-squared analyses suggest that our 29 apologies did not differ in type from the remaining 51 apologies, $p = .08$, nor from the subset of video-taped apologies that did not return results in Eventus, $p = .64$. Moreover, apologies in our sample did not come from significantly different industry sectors than the remaining apologies, $p = .30$, nor from recorded apologies that did not return results in Eventus, $p = .27$.

6.2. Results

6.2.1. Verbal content

Via a series of *t*-tests, we first tested whether the presence of each verbal component of an apology (Scher & Darley, 1997) influenced abnormal returns on the day of, day after, and 30-, 60-, and 90-days following the apology.³ Only the inclusion of an IFID (e.g., saying “I’m sorry”) marginally mitigated same-day performance, $t(27) = -1.94$, $p = .06$. The 22 apologies that included the speaker saying “I’m sorry” ($M = -.08$, $SD = 3.02$) experienced smaller losses than those seven that did not include this statement ($M = -2.72$, $SD = 3.53$). The total number of elements present in each apology (i.e., apology completeness) ($M = 2.65$, $SD = 1.11$) did not correlate with financial outcomes, all $ps > .38$. Controlling for the presence of each verbal element did not change the effects of emotional expression on performance, reported below.

6.2.2. Deviant affect (happiness)

Consistent with our hypothesis, the more lower face happiness (i.e., smiling), the worse the organization’s same-day performance, $r(29) = -.509$, $p = .005$; following-day performance, $r(29) = -.415$, $p = .025$; 30-day performance, $r(29) = -.571$, $p < .001$; and 60-day performance, $r(29) = -.590$, $p < .001$. Lower face happiness was marginally related to abnormal returns over the following 90 days, $r(29) = -.360$, $p = .055$ (see Table 1).

Upper face happiness (i.e., crow’s feet around the eyes) was unrelated to abnormal returns at any measured interval, all p -values $> .57$. This suggests that at least in this context, investors may pay more attention to expressions of happiness in the lower face region (e.g. smiling) than in the upper face region (e.g. crow’s feet).

6.2.3. Normative affect (sadness)

There were no main effects of facial expressions of sadness, all $ps > .27$. Thus, normative emotional expressions seem to have protected the organization from further damage to stock price.

6.2.4. Status and deviant affect

Deviant affect (upper face happiness, i.e., crow’s feet around the eyes) interacted with the status of the apologizer (CEO versus other company representative) to significantly predict same-day performance, $\beta = -.47$, $t(25) = 2.66$, $p = .014$, but not following-day performance ($p = .26$). Using simple slopes analysis (Aiken & West, 1991), we found that upper face happiness did not predict stock market returns on the day of the apology for non-CEOs ($\beta = .26$, $t(25) = .88$, $p = .385$), but predicted negative returns for CEOs, $\beta = -.57$, $t(25) = -2.59$, $p = .016$ (see Fig. 1). This interaction pattern persisted for performance 30 and 60 days following the apology, $\beta = -.47$, $t(25) = 2.54$, $p = .018$ and $\beta = -.45$, $t(25) = 2.48$, $p = .020$, respectively, but appeared to deteriorate by 90 days post-apology, $\beta = -.29$, $t(25) = 1.45$, $p = .16$.

In sum, when CEOs expressed upper face happiness, their organizations did worse in the days following the apology. Although main effects of lower face happiness (i.e., smiles) were evident (see Table 1), no interactions were present between lower face

Table 1

Correlations between upper- and lower-face happiness and stock market performance on the day of the apology, the day after, and 30-, 60-, and 90-day periods afterward (Study 1).

Emotion expression	Time from Apology				
	Same-day	Next-day	30 days	60 days	90 days
Upper face happiness	.15	.00	-.06	-.01	-.11
Lower face happiness	-.51**	-.42*	-.57***	-.59***	-.36*

* $p = .055$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

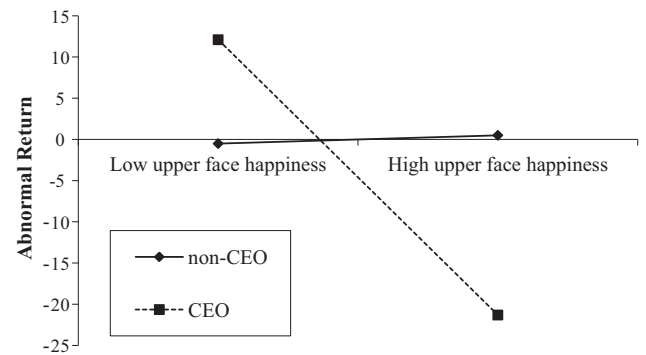


Fig. 1. Interaction between deviant affect (upper face happiness measured as low versus high percentage of total apology) and CEO status (other company representative versus CEO) on abnormal return (%).

happiness (i.e., smile) and status for performance at any of the measured intervals, all $ps > .20$.

6.2.5. Status and normative affect

Normative affect interacted with status to increase stock market gains for CEOs, particularly over longer durations. Specifically, there was a significant interaction between expressions of sadness (i.e., eyebrows moving upward and together, and downturned lips; composite measure) and status on abnormal returns for the 60- and 90-day period, $\beta = .58$, $t(25) = 2.16$, $p = .041$ and $\beta = .73$, $t(25) = 2.71$, $p = .012$ respectively. Sadness improved returns when expressed by CEOs, $\beta = .42$, $t(25) = 2.08$, $p = .048$ for 60 days and $\beta = .66$, $t(25) = 2.82$, $p = .009$ for 90 days, but had no effect for non-CEO apologizers at 60 days, $\beta = -.41$, $t(25) = -.95$, $p = .352$, or 90 days, $\beta = -.25$, $t(25) = -.98$, $p = .336$. The interactions between status and upper face sadness were not significant for the shorter time periods (same-day, next-day, and 30 days). In sum, when apologies were delivered by CEOs (versus other company representatives), sadness mitigated the decrease in performance and implied long-term performance gains for the organization.

6.3. Discussion

When organizations make mistakes, what determines the effectiveness of subsequent apologies? In a study of real investments, we found that when company representatives smiled during an apology for their company’s wrongdoing, their stock performed more poorly in the days following the apology. We found that these effects lasted as long as 3 months after the apology first aired, suggesting that there is a long-term impact of these emotion expressions. Moreover, happiness expressed by those with more decision-making responsibility at the organization had more of

³ We did not find a significant relationship between the mention of remedial steps taken by the organization in the apology and stock market outcomes. However, organizations may have taken remedial actions that they did not mention in the apology we coded. To examine this possibility, we gathered information on whether remedial actions (defined as compensation offered directly to victims, repair of damage caused, and/or specifically defined efforts to avoid future incidents) were taken by each organization offering an apology. While most apologizing organizations took some remedial action ($n = 24$), independent sample *t*-tests did not reveal any differences between organizations offering a remedy and those that did not for stock market returns on the day of, after, 30-, 60-, and 90-days post apology, $ps > .73$.

an impact on organizational performance than those with less responsibility: when CEOs delivered apologies while expressing happiness, these companies performed worse than when lower-status company representatives did the same. Although our proposed mechanism for the effect of status requires direct testing, our finding that the subtle aspect of genuine happiness—the contraction of the *orbicularius oculi*, creating crow's feet around the eyes—only adversely affected CEOs suggests that CEO expressions were more closely scrutinized than lower status representatives, and that these deviant emotions led investors to punish high-status transgressors' organizations more severely.

Although normative affect (sadness) by itself did not improve performance (i.e. there was no main effect), it did have benefits when expressed by CEOs. Appropriate displays of sadness improved organizational performance over lengthy intervals of time. Interestingly, appropriate displays of sadness for CEOs did not translate into short-term performance benefits; a null effect suggests, however, that normative emotions did allow the company to continue along the same trajectory as was predicted by pre-transgression returns. It seems that short-term benefits of normative emotions simply allow the company to move forward as normal, while—in the long term—a good apology can build investor confidence in the company, leading to increases in stock market value.

One plausible explanation for these findings is that financial analysts are the primary perceivers of corporate apologies, and normative and deviant emotions affect their buy and sell recommendations for investors (i.e., a contagion effect). Alternatively, a portion of direct investors may be prompted to sell their stock as a result of the insincere apology, which decreases stock price and prompts other investors to sell their stock on account of the falling price (i.e., a cascade effect). These explanations remain to be investigated, and are suggested for future research. Although it is unclear whether investors themselves react to the apologies or whether this effect occurs through the recommendations or behavior of others, we believe these findings demonstrate that lay perceptions of apologizers' influence real world investment decisions.

Despite providing an ecologically-valid test of our hypothesis, the mechanism by which deviant affect impacts investor confidence remains to be tested. In Studies 2a and 2b, we seek to test our hypothesis that impressions of remorse sincerity mediate the relationship between deviant (versus normative) affect and decreased company confidence.

7. Study 2a: Silent video experiment

We conducted an experiment to test our central hypothesis that an apologizer's expression of happiness during a public apology would worsen third parties' perceptions of that organization. We tested whether lay observers would be able to detect differences in emotion expressions, and whether such emotions would influence their subsequent desires to invest.

Our main comparison of interest is between normative and deviant affect. However, the inclusion of a no-emotion control condition in Study 2a enables us to test whether the effects of affect on performance are due to negative responses to deviant affect (happiness), or positive responses to sadness (normative affect), similar to [Szczyrek et al. \(2012\)](#). Finally, we test perceptions of the apologizer's sincerity as the mechanism by which emotional displays during public apologies affect investment decisions.

7.1. Method

7.1.1. Materials

We recorded a video of a white, male actor (age 44) who played the role of a CEO of Inflight Air apologizing for a recent transgression by his airline (a computer malfunction that cancelled over 140

flights and left thousands of passengers stranded). We adapted the actor's script from an actual apology delivered by Alaska Airlines/Horizon Air that included all of the elements of a complete verbal apology as defined by [Scher and Darley \(1997\)](#) (see [Appendix A](#)). We instructed the actor to appear happy (deviant affect); sad (i.e., to express normative affect); or to show no emotion (no affect) in three separate video-taped versions of the same apology. All three videos were 58 s long.⁴

7.1.2. Participants and procedure

A total of 180 participants were recruited to complete this experiment. Using a priori exclusion criteria, forty-eight individuals were not included in analyses because they either (a) did not complete the survey, (b) failed attention check questions, or (c) reported technical difficulties in viewing the apology they were assigned to watch. As such, participants were 132 individuals (50 men, 82 women, $M_{\text{age}} = 32.19$ years) who completed the study online through Mechanical Turk. Consenting participants were directed to an online survey where they were randomly assigned to view one of the three silent, subtitled videos (normative, deviant, or no affect). To ensure that only facial emotion, and not the way in which the script was spoken, would influence participants' judgments, participants first read the script and then watched one of the three apology videos without sound. Prior to presenting the video, participants were instructed, "Remember, the apology video is silent. Please pay attention to his behavior." Following the video, they rated their perceptions of the apologizer and the organization, and provided demographic information.

7.2. Measures

7.2.1. Sincere remorse

Participants rated the extent to which the apologizer appeared "remorseful" and "sincere" on 7-point scales (strongly disagree/agree). Ratings were strongly correlated, $r(132) = .74$, $p < .001$, and were averaged to form a composite measure of sincere remorse. To draw less attention to these items, we embedded them among twelve other trait ratings (e.g. warm, efficient, dominant).

7.2.2. Reconciliation

We asked participants to imagine being a customer of InFlight Air at the time of the transgressions. We then asked ten items designed by [Joireman et al. \(2013\)](#) to measure how much they would want to punish InFlight Air in some way or accept InFlight Air despite what happened (e.g. Please rate the extent to which you think you would want to: cause inconvenience for InFlight Air (punishment item), and accept InFlight Air despite what happened (acceptance item)). We reverse-scored the punishment items and combined them with the acceptance items to form a composite measure of reconciliation with the organization ($\alpha = .92$).

7.2.3. Repair

In addition to general desires to make amends and forego revenge, stakeholders might also engage in behaviors that signify repair following an apology. We asked participants how likely they would be to engage in behavioral repair on 7-point scales (very unlikely/likely): "Following the public broadcast of this apology, how likely is it that you would: accept this apology; take a job with InFlight Air if you were offered one; invest money in InFlight Air; feel proud to work for InFlight Air; recommend that a friend seek

⁴ According to a trained coder, the normative affect apology contained 58 s of upper face sadness; the deviant affect apology included 5.5 s of upper and 16.0 s of lower face happiness (all remaining time in both videos was emotionally neutral). The no affect apology did not involve affect of any kind.

employment with InFlight Air; sell off your stock in InFlight Air, assuming you had previously purchased some (reverse-scored)?” ($\alpha = .73$).

7.2.4. Company confidence

To measure company confidence, we asked participants six items: “Following the public broadcast of this apology, how likely is it that InFlight Air will turn a profit; receive positive media attention; be involved in another ethical transgression (reverse-scored); that a large number of employees will choose to leave (reverse-scored); that InflightAir will be run efficiently and effectively; and will make significant changes to avoid a similar outbreak in the future?” For all items, we specified a time period of 6 months. Participants responded on 7-point scales (very unlikely/likely) ($\alpha = .78$).

7.2.5. Performance predictions

Finally, we asked participants to “indicate how much you expect InFlight Air’s stock market price to change, in percentage points, on the day of the apology.” Participants could respond by sliding a bar on a scale ranging from –20% to +20%.

7.3. Results

Means and standard deviations for all dependent measures appear in Table 2. Correlations are provided in Table 3.

7.3.1. Sincere remorse

We conducted a one-way analysis of variance (ANOVA) and found that participants perceived different levels of sincere remorse depending on which video they watched, $F(2, 129) = 11.16, p < .001$. They rated the apologizer as more sincere when he expressed normative rather than deviant or no affect, although the difference between the latter two conditions was not significant.

7.3.2. Reconciliation

The effect of apology condition on individuals’ reconciliation attitudes toward InFlight Air was significant, $F(2, 129) = 3.11,$

$p = .048$. Participants indicated they would be more willing to reconcile with the organization when they viewed an apology with normative rather than deviant affect; the difference between the deviant and no affect conditions was not significant.

7.3.3. Repair

There was an effect of condition on the extent to which participants endorsed reparative behaviors, $F(2, 129) = 5.14, p = .007$. Participants were more likely to exhibit behavioral repair when they viewed the normative rather than deviant or no affect apologies; there was no difference between the latter two conditions.

7.3.4. Company confidence

Participant confidence in InFlight Air depended on which apology they saw, although this effect was not conventionally significant, $F(2, 129) = 2.60, p = .078$. The only significant pairwise comparison was between the normative and no affect conditions, $t(77) = -2.61, p = .011$; normative affect improved confidence. However, the contrast between the appropriate versus both the inappropriate and no affect conditions was marginally significant, $t(129) = 1.88, p = .063$.

7.3.5. Stock market performance

Finally, performance predictions differed as a function of which apology they saw, $F(2, 129) = 4.15, p = .018$. Participants thought the organization would perform more poorly when they saw the apologizer express deviant or no affect, relative to normative affect.

7.3.6. Mediation

To test mediation, we created a dummy variable to represent the contrast between the normative affect condition compared to the deviant and no affect conditions. We tested whether perceived sincere remorse mediated the effect of apology type on reconciliation, repair, confidence, and predicted stock market performance. We conducted mediation tests as per Preacher and Hayes (2004) with 1000 bootstrapped samples. The bootstrap coefficients (and 95% CIs) for the indirect effect of apology through remorse sincerity were .65 (.33, 1.01) for reconciliation; .67 (.36, .99) repair; .47 (.24, .73) for company confidence; and 1.28 (.41, 2.41) for predicted stock market performance. Thus, remorse sincerity mediated the effects of apology type (normative compared to deviant and no affect) on improved perceptions of the organization.

Table 2

Means and standard deviations for remorse sincerity, apology acceptance, relationship repair, confidence, and predicted stock market performance as a function of affect condition (Study 2a).

Dependent measure	Condition		
	No affect	Deviant affect (happiness)	Normative affect (sadness)
Sincere remorse	2.31 (1.29) _a	2.60 (1.34) _a	3.76 (1.72) _b
Acceptance	3.61 (1.25) _a	3.64 (1.30) _a	4.23 (1.23) _b
Repair	2.59 (1.15) _a	2.71 (1.10) _a	3.36 (1.26) _b
Confidence	3.76 (0.74) _a	4.05 (1.13) _{ab}	4.26 (0.94) _b
Stock market performance	–8.90 (4.41) _a	–7.94 (6.03) _a	–5.42 (5.93) _b

Note. Means with different subscripts within each row differ significantly from each other at $p < .05$. Standard deviations are provided in parentheses.

Table 3

Correlations between dependent measures, Study 2a.

Measure	1.	2.	3.	4.	5.
1. Sincere remorse	–				
2. Acceptance	0.61*	–			
3. Repair	0.68*	0.72*	–		
4. Confidence	0.55*	0.60*	0.64*	–	
5. Stock market performance	0.32*	0.36*	0.40*	0.35*	–

* $p < .01$.

8. Study 2b: Subtitled video experiment

While the results of Study 2a strongly support our hypotheses, reading a text apology and subsequently watching a silent video may encourage additional attention to emotional expression that would not naturally occur when verbal and nonverbal information are presented simultaneously. In order to increase mundane realism but maintain experimental control over potential emotional cues in the voice, we conducted Study 2b in which the deviant and normative affect apology videos were presented with an apology in text, using subtitles. As in Study 2a, we test whether differences in emotional expressions would affect lay observer impressions of sincerity, and influence observer confidence in the organization.

8.1. Method

8.1.1. Materials

Subtitles were added to the same deviant and normative affect videos as used in Study 2a. The text of the apology was presented in large font at the bottom of the video frame. Relative to Study 2a, the text of the apology was condensed in length for ease of reading

in the short duration of the video (58 s). The apology, however, maintained all elements of a complete apology as defined by Scher and Darley (1997). It read as follows:

Hi everyone, I'm Warren Stevenson. I'm here to talk about a computer system problem, which has seriously affected our ability to prepare flight plans. As a result, we have cancelled around 140 flights. Our IT crews have been working non-stop to fix the issue. We are working to get as many of our customers as possible on their way as quickly as we can. We know you count on us so you can make it to your commitments. That's a responsibility that we don't take lightly and we're very sorry that we prevented you from getting to your destination on time. If you're among those affected, please contact our customer care team. We are working diligently to respond to every customer. We will make this right for you.

8.1.2. Participants and procedure

A total of 199 participants were recruited to complete this experiment. The same criteria used in Study 2a were used to exclude participants from analyses a priori. After exclusions, participants were 142 individuals (83 men, 59 women, $M_{\text{age}} = 36.11$ years) who completed the study online through Mechanical Turk. The procedure was the same as Study 2a except that we did not include the no emotion condition, and we did not instruct participants to pay attention to the apologizer's behavior.

8.2. Measures

8.2.1. Sincere remorse

In addition to the same measures of remorse sincerity used in Study 2a, participants were also asked to rate whether the apologizer appeared "truly apologetic", to increase validity of the composite construct. These 3 items were again embedded among the same other twelve trait ratings (e.g. warm, efficient, dominant ($\alpha = .94$)).

8.2.2. Company confidence

To measure company confidence, we asked participants the same six items as described in Study 2a ($\alpha = .79$).

8.2.3. Performance predictions

We also asked to participants to predict InFlight Air's stock market change, in percentage points (ranging from -20% to $+20\%$), on the day of the apology.

8.3. Results

8.3.1. Sincere remorse

Participants rated the apologizer as more sincere ($M = 4.44$; $SD = 1.52$) when he expressed normative rather than deviant affect ($M = 3.62$; $SD = 1.62$), $F(1, 140) = 9.46$, $p = .003$, $d = .50$. Correlations between sincere remorse and all measured outcomes are provided in Table 4.

8.3.2. Company confidence

Participant confidence in InFlight Air was greater when they watched the normative ($M = 4.50$; $SD = .83$) rather than the deviant apology ($M = 4.15$; $SD = .96$), $F(1, 140) = 5.27$, $p = .023$, $d = .38$.

Table 4
Correlations between dependent measures, Study 2b.

Measure	1.	2.	3.
1. Sincere remorse	–		
2. Confidence	0.62*	–	
3. Stock market performance	0.39*	0.44*	–

* $p < .01$.

8.3.3. Stock market performance

Although participants predicted a greater decrease in InFlight Air stock market price following the deviant ($M = -5.38$; $SD = 6.43$), relative to the normative affect apology ($M = -5.23$; $SD = 6.39$), this difference was not statistically significant, $F(1, 140) = .02$, $p = .890$.

8.3.4. Mediation

As in Study 2a, we tested the indirect effect of deviant versus normative affect on company confidence and predicted stock market performance through perceived remorse sincerity. We conducted tests of the indirect effect as per Preacher and Hayes (2004) with 1000 bootstrapped samples. The bootstrap coefficients (and 95% CIs) for the indirect effect of apology through remorse sincerity were $-.28$ ($-.48, -.09$) for company confidence and -1.33 ($-2.40, -.44$) for predicted stock market performance. Consistent with Study 2a, there was a significant indirect effect of apology type (normative versus deviant) on improved company confidence and predictions for the organizations' stock price through perceived remorse sincerity.

9. Studies 2a and 2b: Discussion

In Studies 2a and b, we found evidence for a causal relationship between the apologizer's facial emotion expression and public perceptions of his organization. Normative affect mitigated negative perceptions and outcomes following apologies, while deviant affect exacerbated these outcomes. Both the expression of happiness and the lack of emotion were seen as similarly insincere, and were equally damaging to observers' perceptions of the company. Moreover, the perceived sincerity of the apologizer was the mechanism by which inappropriate affect causes negative perceptions and lower investment motivations. When the company representative expressed happiness (or no emotion), he was perceived to be less sincere than when he expressed sadness, and the sincerity of his remorse mediated the effect of emotion expression on lay people's perceptions of the company and desires to invest.

One important limitation of Study 2a was the contrived nature of a silent video presented in sequence, following a text apology. Study 2b improved upon 1a by adding subtitles and presenting verbal and nonverbal information simultaneously. Results again suggested that deviant affect decreased perceptions of remorse sincerity, relative to normative affect, and led to diminished company confidence and lower stock market predictions. In combination with the ecologically valid test of our hypotheses in Study 1, we find consistent evidence that deviant affect is associated with greater perceived insincere remorse and subsequent decreased confidence and investment in the apologizing organization.

10. General discussion

Why are some apologies more effective than others? In this paper, we present evidence that the appropriateness of emotions expressed during an apology has wide-ranging consequences for the apologizer and his organization. Normative affect (sadness, an emotion that is suitable as an expression during apologies) mitigated perceptions of the apologizer and his organization following transgressions. Deviant affect (in the form of happiness, which is inconsistent with apology norms) was associated with worse organizational performance. In Study 1, we found evidence that perceptions of affect have consequences for real world decisions in the form of actual investments. In Studies 2a and b, we found that these deviant emotion displays negatively influenced lay observers' willingness to invest in organizations, sullied their

perceptions of the organization, and decreased their confidence that it would perform well in the future. Organizations' stock prices decreased when their company representative apologized happily rather than sadly. Moreover, in Study 1, the negative organizational consequences of deviant affect persisted as long as 90 days after the apology occurred.

Furthermore, in Study 1, we found that the effects of these emotional expressions were exacerbated when the apologizer was the CEO rather than another lower-status company representative. We also found that CEOs were rewarded for contrition more than non-CEOs. Thus, when CEOs rather than other individuals represent an organization, companies providing apologies with normative emotion are rewarded more (in terms of performance) while companies delivering apologies with deviant emotion are punished more. We suggest that this is because the relative powerlessness (in comparison with the powerful CEO) experienced by the observer increases attention to others and promotes accurate emotion detection (Keltner et al., 2003). Further, since the transgressions of powerful people are judged more harshly than the relatively powerless, CEOs' organizations are also likely to be punished more for their deviant affect than other lower-status representatives. In short, these findings put pressure on leaders to ensure that they exhibit behavior that shows contrition.

11. Contributions and prescriptions

These studies make at least two important contributions to extant theory on organizational justice. First, we operationalize apology insincerity beyond verbal content analysis by looking at facial cues. Whereas most researchers have studied insincerity via simple manipulations of words (Pace et al., 2010) or the verbal content of the apology itself, we argue that facial cues are better measures of insincerity because they are less subject to the apologizer's control (and are therefore more accurate; ten Brinke & Porter, 2012).

Second, we advance existing research that has linked CEOs' facial structure to organizational performance (e.g. Livingston & Pearce, 2009; Wong, Ormiston, & Haselhuhn, 2011), finding that brief but dynamic emotional expressions also impact performance. The present findings contribute to recent investigations that highlight the impact of leaders' emotional presentations on subordinates (Stewart, Waller, & Schubert, 2009; Sy, Côté, & Saavedra, 2005); leaders should be aware of the enormous impact of subtle changes in their nonverbal behavior. Even brief expressions of emotion can have a powerful impact on the interpretation of a message. The present findings add to a series of recent investigations that highlight the particular impact of a leader's emotional presentation on her subordinates' thoughts, feelings, and behavior (Stewart et al., 2009; Sy et al., 2005). In business as in politics, leaders should be aware of the enormous impact of subtle changes in their nonverbal behavior. A misplaced smile can damage fragile organizational reputations and send stock prices plummeting.

In light of these findings, we advise those who represent an organization during an apology to first ascertain their ability to apologize with the appropriate expression of nonverbal remorse. Moreover, organizations should think carefully about which organizational representative they should select to deliver an apology, as organizations may do more damage by selecting high status representatives who apologize insincerely. CEOs who are highly emotionally intelligent (EI) may be best suited for the task of apologizing. Individuals high in EI are able to accurately appraise and express ones' own emotions, and have been found to be better at falsifying emotional expressions than those low in EI (Porter, ten Brinke, Baker, & Wallace, 2011; Salovey & Mayer, 1989). Further, high EI may account for improved organizational performance;

those CEOs who can appropriately manage their emotional responses when apologizing may also have superior managerial and leadership skills that lead to improved organizational performance.

Finally, we question the normative prescription that representatives should apologize for any wrongdoing they or their organization have committed (see also Wohl et al., 2011). Because our research suggests that apologies are detrimental to the organization when they are insincere, we recommend that people think carefully about who should apologize, based on that representative's ability to apologize sincerely.

12. Limitations and future directions

Our studies suggest that normative and deviant emotion expressions similarly affect trained coders (Study 1) and lay observers (Study 2), which, at first glance, might seem to fly in the face of research suggesting that naïve observers are poor lie detectors (achieving just 54% accuracy in dichotomous-choice lie detection tasks; Bond & DePaulo, 2006). However, there is actually much evidence to suggest that people are keen judges of many psychological states and traits—including those behavioral cues that signal deception (DePaulo & Morris, 2004; Vrij, Edward, & Bull, 2001). For example, people are highly accurate at detecting the emotional states of others, and naïve perceptions of ambivalence (i.e., incongruence between emotion expressed on the face and in verbal content) can accurately predict veracity (DePaulo et al., 2003; Hartwig & Bond, 2011). Further, individuals who scrutinize facial expressions as opposed to other cues are most likely to correctly determine credibility (Porter, Campbell, Stapelton, & Birt, 2002; Warren, Schertler, & Bull, 2009). These cues need not be obvious to have a dramatic effect; even brief emotional leakages impact naïve observers' perceptions and evaluations (Stewart et al., 2009). Taken together, this research demonstrates that observers are actually aware of accurate behavioral cues to deception and that this knowledge influences interpersonal impressions (Reinhard, Greifeneder, & Scharmach, 2013; Sporer & Masip, 2012; ten Brinke, Stimson, & Carney, 2014). In the context of public corporate apologies, deviant emotional displays by the apologizer seem to similarly induce negative reactions toward the apologizing representative's organization.

Although our results suggest that greater (percent) durations of deviant affect predict negative stock market reactions, other dimensions of emotional expressions may affect investor confidence. For example, high intensity expressions of deviant affect may be more damaging than low intensity expressions, and the symmetry of sadness expressions may influence the extent to which normative affective responses mitigate damage. Future research should examine how other characteristics of emotional expressions affect observer impressions.

Furthermore, to the extent that the expression of positive affect during an apology violates social norms, the present findings may extend to other responses besides apologies following a transgression. Requests for forgiveness or forms of self-punishment, for example, may seem insincere if not accompanied by appropriate affect, ultimately reducing their effectiveness in repairing damaged relationships. In addition, it would be interesting to investigate who—if anyone—is given a pass for such norm violations. It may be the case that certain people are more likely not to be punished for deviating from expected expressions of affect (sadness). For example, CEOs who have trustworthy faces or child-like facial features (babyfaced) may be perceived to be more sincere, in general, or less responsible for their organization's transgression (Berry & Zebrowitz-McArthur, 1988; Porter, Gustaw, & ten Brinke, 2010). Alternatively, CEOs' past performance may moderate the effect of

their emotional expressions on investor confidence; CEOs who have repeatedly apologized appropriately and shown contrition have already established themselves as adequately remorseful, and so their brief expression of happiness might not have such a negative impact on third-party perceptions. Research could investigate these and other ways in which apologizers' histories of normative behavior earn them idiosyncratic credits that might protect them and their organizations and permit norm deviations (Hollander, 1958).

Finally, future research could explore whether these effects extend to non-western cultures. Cultural differences exist in the social rules that govern emotional expression and perception (Matsumoto, 1990, 1993), thus it might moderate the effects of emotional expression on stakeholder reactions. Future work might also examine additional nonverbal predictors of organizational performance, and could focus on the organizational effects of emotional leakage outside of the context of apologies for transgressions. The effect of inappropriate nonverbal behavior has important consequences for relationships within organizations too (e.g., Bucy, 2000), and indicators of emotion and credibility in vocal qualities may further influence investor confidence and organizational outcomes (e.g., DePaulo et al., 2003; Russell, Bachorowski, & Fernandez-Dols, 2003).

13. Conclusion

Ultimately, it is important to recognize that deviant emotional expressions can diminish the effectiveness of a corporate apology. As such, organizational attempts to recover from their transgressions may backfire. Although remorseful apologies appear to abate the negative effect of transgressions on corporate performance and investor relations, appearing remorseless can 'rub salt in the wound' left by the transgression.

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Appendix A

A.1. Study 1: Coding procedures

A.1.1. Coding verbal apology elements

In order to compare and contrast the effects of the apologizer's facial expressions with the content of the apology, we first coded the presence of verbal apology elements using the definitions provided by Scher and Darley (1997). The coder (blind to financial outcomes) read transcripts of each apology and classified the text according to whether each of the following attributes were present: (1) illocutionary force indicating device (IFID), (2) account of the transgression, (3) taking responsibility for the transgression, (4) an offer of repair, (5) a promise of forbearance, or (6) other. IFIDs included statements such as "I'm sorry", "I apologize", or "Excuse me." Other portions of an apologetic speech act that did not fall into the above categories often were a personal introduction or expressions of thanks.

A.1.1.1. Reliability. A second (blind to hypotheses and financial outcomes) coder followed the same procedure for $n = 10$ (34.5%) of the apologies to assess reliability. Inter-rater agreement was strong for all verbal apology elements; Kappas ranged from .57 to .80 (% agreement: 83.33–91.67%).

A.2. Coding emotional facial expressions

We coded the emotional expressions using a highly reliable coding procedure developed for Porter and ten Brinke's (2008) study, and derived from the Facial Action Coding System (FACS; Ekman et al., 2002). The coder examined the apologizer's face for each 1/30th second frame of the apology videos for the duration of the universal emotional expressions in the upper and lower facial regions. The upper facial region corresponds to areas around the eyes and forehead. The lower facial region includes nose, mouth, cheek, and chin areas. Facial hemispheres are coded independently because coding full-face expressions is not sufficiently sensitive to capture the complexity of emotional facial movement. If some expressed remorse is in fact deceptive, this approach is necessary to detect subtle leakages associated with falsified emotional expressions. Indeed, emotional signals of deception are rarely full-faced, and instead are seen in particular muscles that are less under volitional control (Rinn, 1984). As such, measurement of emotional facial expressions describe facial movement either at the level of facial hemispheres (Porter & ten Brinke, 2008), unitary movements of several muscles, or even individual muscles (i.e., action units; Ekman et al., 2002). In previous laboratory and field research, the presence and duration of emotional expressions in the upper and lower face (coded separately) has provided sufficient granularity (Porter, ten Brinke, & Wallace, 2012; ten Brinke & Porter, 2012). This level of facial analysis was favored in the present investigation for its demonstrated ability to discriminate sincere and insincere remorse (ten Brinke, MacDonald, Porter, & O'Connor, 2012), and its relative ease over the FACS (i.e., action unit-level analysis; Ekman et al., 2002).

Coding was completed by moving through the video frame-by-frame, and recording the emotion expressed in the upper and lower facial regions (happiness, sadness, fear, anger, disgust, surprise, and contempt), as well as the time at which each expression began and ended. Training in this method involves recognizing facial musculature, memorizing the facial action units associated with universal emotions (Ekman et al., 2002), and reliably and accurately identifying the seven universal emotions.

This coder had previously been trained and has shown high reliability with others. During coding, the audio was turned off to avoid any potential bias introduced by speech content or tone of voice, and the coder was blind to financial outcomes. Each of the 90,583 frames was coded twice, once with attention to the upper face and again with attention to the lower face, for a total of 181,166 coded frames.

A.2.1. Deviant affect

We operationalized deviant affect as the amount of happiness expressed by the upper and lower face. The apologizer should neither show nor feel happiness about the transgression committed, or the plight of any victims. The expression of happiness is inappropriate to the situation, and such an emotional expression is likely to be interpreted as deviant by observers (Szczyrek et al., 2012). Further, past research has consistently found that insincerity, including insincere remorse, specifically, is associated with the leakage of happiness (Frank & Ekman, 1997; Porter & ten Brinke, 2008; Porter et al., 2012; ten Brinke & Porter, 2012; ten Brinke, MacDonald, Porter, & O'Connor, 2012). Although these cues may not indicate insincerity in all cases, they are likely to be perceived by observers, creating an impression of apologizer ambivalence and—in this case—perceived remorselessness, as demonstrated in Studies 2a and b (DePaulo et al., 2003; Hartwig & Bond, 2011).

A.2.2. Normative affect

In contrast, expressions of upper and lower face sadness were operationalized as normative because they may signal sympathy

for any victims or, at the very least, distress about the plight in which the organization has found itself. Sadness has been found to be associated with the genuine expression of distress in previous research (ten Brinke, Porter, & Baker, 2012; Keltner & Buswell, 1996) and has been operationalized as a signal of genuine remorse in previous investigations (e.g., Robinson, Smith-Lovin, & Tsoudis, 1994).

Although other emotions, such as self-directed anger and contempt, could be construed as signals of sincere remorse, these expressions occur very rarely in remorseful narratives (ten Brinke, MacDonald, Porter, & O'Connor, 2012). In the present sample, only happiness and sadness occurred often enough to be subjected to statistical analyses. On average, sadness (averaged across the upper and lower face) was expressed for 9.90% ($SD = 17.03$) of an apology and happiness was expressed for 2.87% ($SD = 9.57$). All other emotions were expressed for less than 0.5% of the apology, and were uncorrelated with abnormal returns at any time (day of apology, day after, 30-, 60-, and 90-days post apology), all $ps > .07$.

A.2.3. Reliability

Another highly trained individual, blind to hypotheses and stock market returns, coded $n = 8$ (27.6%) of the apologies to assess reliability. The durations of upper and lower face happiness and sadness were highly correlated ($rs = .63-.90$) and means for each emotion did not differ significantly across coders, all $ps > .05$.

A.3. Results

A.3.1. Moderating effect of fortune 500 status

When we included all control variables in the model simultaneously, we lost substantial power due to the small number of apologies for which video was available. Reported results remained statistically significant when control variables were entered sequentially, except that controlling for Fortune 500 list status decreased the effect of lower face happiness on day-of abnormal returns, $p = .09$, and the effect of lower face happiness on day-after abnormal returns was only marginally significant, $p = .08$, controlling for transgression cost. Fortune 500 companies ($M = .86$, $SD = 1.88$) experienced lower abnormal returns than smaller organizations on the day of the apology ($M = -3.72$, $SD = 3.37$), $t(27) = -4.72$, $p < .001$. We examined Fortune 500 status as a potential moderator. The interaction between the expression of upper face happiness and presence on the Fortune 500 list approached significance in predicting abnormal returns on the day of the apology, $F(1, 25) = 3.87$, $p = .060$. The expression of upper face happiness did not predict abnormal returns for Fortune 500 organizations ($B = .02$, $t(25) = .70$, $p = .488$), but was a marginally negative predictor for smaller organizations, $B = -.56$, $t(25) = -1.92$, $p = .066$.

A.4. Study 2a: Apology transcript

Hi everyone, I'm Warren Stevenson. I'm here to talk with you about a problem with our computer systems, which has seriously affected our operations today. Early this morning, while a back-up power system was being installed, a transformer blew and took down our central computer system. This system is used to prepare flight plans among other functions. As of midday, we have cancelled around 140 flights. Our IT crews have been working non-stop to fix the issue and we're operating on back-up systems now. We are working to get as many of our customers as possible on their way as quickly as we can.

We know you count on us to meet our flight schedule so you can make it to your commitments. Whether it's a family gathering, an important business obligation, or a spring break trip, that's a

responsibility that we don't take lightly and we're very sorry that we prevented you from getting to your destination on time.

If you're among those customers who've been affected, we encourage you to contact our customer care team after you've been re-accommodated. Our representatives are working diligently to respond to every customer. We will make this right for you. We look forward to the opportunity to welcome you on one of our flights again soon.

References

- Agrawal, M., Kishore, R., & Rao, H. R. (2006). Market reactions to E-business outsourcing announcements: An event study. *Information and Management*, 43, 861–873.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park CA: Sage.
- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, 111, 256–274.
- Arsenio, W. F., & Lover, A. (1995). Children's conceptions of sociomoral affect: Happy victimizers, mixed emotions and other expectancies. In M. Killen & D. Hart (Eds.), *Morality in everyday life: Developmental perspectives* (pp. 87–128). Cambridge: Cambridge University Press.
- Barrett, L. F., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology*, 74, 967–984.
- Bennett, M., & Earwaker, D. (1994). Victims' responses to apologies: The effects of offender responsibility and offense severity. *The Journal of Social Psychology*, 134, 457–464.
- Berry, D. S., & Zebrowitz-McArthur, L. (1988). What's in a face? The impact of facial maturity and defendant intent on the attribution of legal responsibility. *Personality and Social Psychology Bulletin*, 14, 23–33.
- Bond, C. F., Jr., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality and Social Psychology Review*, 10, 214–234.
- Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics*, 14, 3–31.
- Bucy, E. P. (2000). Emotional and evaluative consequences of inappropriate leader displays. *Communication Research*, 27, 194–226.
- Cialdini, R. B. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science*, 12, 105–109.
- Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*, 58, 1015–1026.
- Coombs, W. T., & Holladay, S. J. (2007). The negative communication dynamic: Exploring the impact of stakeholder affect on behavioral intentions. *Journal of Communication Management*, 11, 300–312.
- Cowan, A. R. (2007). *Eventus: User's Guide*. Cowan Research, L.C.
- Darby, B. W., & Schlenker, B. R. (1982). Children's reactions to apologies. *Journal of Personality and Social Psychology*, 43, 742–753.
- Darby, B. W., & Schlenker, B. R. (1989). Children's reaction to transgressions: Effects of the actor's apology, reputation, and remorse. *British Journal of Social Psychology*, 28, 353–364.
- Darwin, C. (1872/1998). *The expression of the emotions in man and animals*. Oxford University Press.
- De Cremer, D., & Schouten, B. C. (2008). When apologies for injustice matter: The role of respect. *European Psychologist*, 13, 239–247.
- De Greiff, P. (2006). *The handbook of reparations*. New York, NY: Oxford University Press.
- Decker, W. H. (2012). A firm's image following alleged wrongdoing: Effects of the firm's prior reputation and response to the allegation. *Corporate Reputation Review*, 15, 20–34.
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, 129, 74–118.
- DePaulo, B. M., & Morris, W. L. (2004). Discerning lies from truths: Behavioral cues to deception and the indirect pathway of intuition. In P. A. Granhag & L. A. Stromwall (Eds.), *Deception detection in forensic contexts* (pp. 15–40). Cambridge: Cambridge University Press.
- Dhimi, M. K. (2012). Offer and acceptance of apology in victim-offender mediation. *Critical Criminology*, 20, 45–60.
- Ekman, P. (1992). *Telling lies: Clues to deceit in the marketplace, politics, and marriage*. New York: WW Norton & Company.
- Ekman, P., Davidson, R. J., & Friesen, W. V. (1990). The Duchenne smile: Emotional expression and brain physiology: II. *Journal of Personality and Social Psychology*, 58, 342–353.
- Ekman, P., Friesen, W. V., & Hagar, J. C. (2002). *Facial action coding system*. Salt Lake City, UT: Network Information Research.
- Exline, J. J., Deshea, L., & Holeman, V. T. (2007). Is apology work the risk? Predictors, outcomes, and ways to avoid regret. *Journal of Social and Clinical Psychology*, 26, 479–504.
- Fehr, R., & Gelfand, M. J. (2010). When apologies work: How matching apology components to victims' self-construals facilitates forgiveness. *Organizational Behavior and Human Decision Processes*, 113, 37–50.

- Feinberg, M., Willer, R., & Keltner, D. (2012). Flustered and faithful: Embarrassment as a signal of prosociality. *Journal of Personality and Social Psychology*, *102*, 81–98.
- Fineman, S., & Gabriel, Y. (2010). Apologies and remorse in organizations: Saying sorry—and meaning it? *Advanced Series in Management*, *7*, 103–120.
- Fragale, A. R., Rosen, B., Xu, C., & Merideth, I. (2009). The higher they are, the harder they fall: The effects of wrongdoer status on observer punishment recommendations and intentionality attributions. *Organizational Behavior and Human Decision Processes*, *108*, 53–65.
- Frank, M. G., & Ekman, P. (1997). The ability to detect deceit generalizes across different types of high-stake lies. *Journal of Personality and Social Psychology*, *72*, 1429–1439.
- Goffman, E. (1971). *Relations in public*. New York: Basic Books.
- Hartwig, M., & Bond, C. G. Jr. (2011). Why do lie-catchers fail? A lens model meta-analysis of human lie judgments. *Psychological Bulletin*, *137*, 643–659.
- Hollander, E. P. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review*, *65*, 117–127.
- Horberg, E. J., Kraus, M. W., & Keltner, D. (2013). Pride displays communicate self-interest and support for meritocracy. *Journal of Personality and Social Psychology*, *105*, 24–37.
- Joireman, J., Gregoire, Y., Devezer, B., & Tripp, T. M. (2013). When do customers offer firms a “second chance” following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation. *Journal of Retailing*, *89*, 315–337.
- Jones, G. H., Jones, B. H., & Little, P. (2000). Reputation as reservoir: Buffering against loss in times of economic crisis. *Corporate Reputation Review*, *3*, 21–29.
- Kellerman, B. (2006). When should a leader apologize – and when not? *Harvard Business Review*, *84*, 72–81.
- Keltner, D., & Buswell, B. N. (1996). Evidence for the distinctiveness of embarrassment, shame, and guilt: A study of recalled antecedents and facial expressions of emotion. *Cognition and Emotion*, *10*, 155–171.
- Keltner, D., Cordaro, D., McNeil, G. D., Simon-Thomas, E. R., Piff, P. K., & Jones, M. (2015). *Darwin's emoticons: The artistic portrayal of 51 emotions* (submitted for publication).
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, *110*, 265–284.
- Kim, P. H., Ferrin, D. L., Cooper, C. D., & Dirks, K. T. (2004). Removing the shadow of suspicion: The effects of apology versus denial for repairing competence-versus integrity-based trust violations. *Journal of Applied Psychology*, *89*, 104–118.
- Liedtke, M. (2011, September 19). *Netflix says it's sorry, then creates new uproar*. Retrieved from <<http://www.businessweek.com/ap/financialnews/D9PR558G2.htm>>.
- Livingston, R. W., & Pearce, N. A. (2009). The teddy-bear effect: Does having a baby face benefit Black chief executive officers? *Psychological Science*, *20*, 1229–1236.
- Matsumoto, D. (1990). Cultural similarities and differences in display rules. *Motivation and Emotion*, *14*, 195–214.
- Matsumoto, D. (1993). Ethnic differences in affect intensity, emotion judgments, display rule attitudes, and self-reported emotional expression in an American sample. *Motivation and Emotion*, *17*, 107–123.
- Nunner-Winkler, G., & Sodian, B. (1988). Children's understanding of moral emotions. *Child Development*, *59*, 1323–1338.
- Ohbuchi, K. I., Kameda, M., & Agarie, N. (1989). Apology as aggression control: Its role in mediating appraisal of and response to harm. *Journal of Personality and Social Psychology*, *56*, 219.
- Owram, K. (2009). *Maple leaf foods recovers from listeria crisis*. Retrieved from <<http://www.thestar.com/business/article/717348-maple-leaf-foods-recovers-from-listeria-crisis>>.
- Pace, K. M., Fediuk, T. A., & Botero, I. C. (2010). The acceptance of responsibility and expressions of regret in organizational apologies after a transgression. *Corporate Communications: An International Journal*, *15*, 410–427.
- Porter, S., Bhanwer, A., Woodworth, M., & Black, P. J. (2014). Soldiers of misfortune: An examination of the Dark Triad and the experience of schadenfreude. *Personality and Individual Differences*, *67*, 64–68.
- Porter, S., Campbell, M. A., Stapelton, J., & Birt, A. R. (2002). The influence of judge, target, and stimulus characteristics on the accuracy of detecting deceit. *Canadian Journal of Behavioural Science*, *34*, 172–185.
- Porter, S., Gustaw, C., & ten Brinke, L. (2010). Dangerous decisions: The impact of first impressions of trustworthiness on the evaluation of legal evidence and defendant culpability. *Psychology, Crime & Law*, *16*, 477–491.
- Porter, S., & ten Brinke, L. (2008). Reading between the lies: Identifying concealed and falsified emotions in universal facial expressions. *Psychological Science*, *19*, 508–514.
- Porter, S., ten Brinke, L., Baker, A., & Wallace, B. (2011). Would I lie to you? “Leakage” in deceptive facial expressions relates to psychopathy and emotional intelligence. *Personality and Individual Differences*, *51*, 133–137.
- Porter, S., ten Brinke, L., & Wallace, B. (2012). Secrets and lies: Involuntary leakage in deceptive facial expressions as a function of emotional intensity. *Journal of Nonverbal Behavior*, *36*, 23–37.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*, *36*, 717–731.
- Public Health Agency of Canada (2008, December 10). *Listeria monocytogenes outbreak*. Retrieved from <<http://web.archive.org/web/20090207083151/>>, <http://www.phac-aspc.gc.ca/alert-alerte/listeria/listeria_2008-eng.php>.
- Reinhard, M. A., Greifeneder, R., & Scharmach, M. (2013). Unconscious processes improve lie detection. *Journal of Personality and Social Psychology*, *105*, 721–739.
- Rinn, W. E. (1984). The neuropsychology of facial expression: A review of the neurological and psychological mechanisms for producing facial expressions. *Psychological Bulletin*, *95*, 52–77.
- Risen, J. L., & Gilovich, T. (2007). Target and observer differences in the acceptance of questionable apologies. *Journal of Personality and Social Psychology*, *92*, 418–433.
- Robinson, D. T., Smith-Lovin, L., & Tsoudis, O. (1994). Heinous crime or unfortunate accident? The effects of remorse on responses to mock criminal confessions. *Social Forces*, *73*, 175–190.
- Rose, M. R., Nadler, J., & Clark, J. (2006). Appropriately upset? Emotion norms and perceptions of crime victims. *Law and Human Behavior*, *30*, 203–219.
- Russell, J. A., Bachorowski, J.-A., & Fernandez-Dols, J.-M. (2003). Facial and vocal expressions of emotion. *Annual Review of Psychology*, *54*, 329–349.
- Salovey, P., & Mayer, J. D. (1989). Emotional intelligence. *Imagination, Cognition and Personality*, *9*, 185–211.
- Scher, S. J., & Darley, J. M. (1997). How effective are the things people say to apologize?: Effects of the realization of the apology speech act. *Journal of Psycholinguistic Research*, *26*, 127–140.
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, *22*, 1359–1366.
- Smith, N. (2008). *I was wrong: The meanings of apologies*. New York, NY: Cambridge University Press.
- Smith, C. E., Chen, D., & Harris, P. L. (2010). When the happy victimizer says sorry: Children's understanding of apology and emotion. *British Journal of Developmental Psychology*, *28*, 727–746.
- Sporer, S. L., & Masip, J. (March 14, 2012). Indirect vs. direct measures to detect deception: A cross-national comparison. *Paper presented at the annual meeting of the American Psychology-Law Society, San Juan, Puerto Rico*.
- Stewart, P. A., Waller, B. M., & Schubert, J. N. (2009). Presidential speechmaking style: Emotional response to micro-expressions of facial affect. *Motivation and Emotion*, *33*, 125–135.
- Sy, T., Côté, S., & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology*, *90*, 295–305.
- Szczurek, L., Monin, B., & Gross, J. J. (2012). The stranger effect: The rejection of affective deviants. *Psychological Science*, *23*, 1105–1111.
- Tellis, G. J., & Johnson, J. (2007). The value of quality. *Marketing Science*, *26*, 758–773.
- ten Brinke, L., MacDonald, S., Porter, S., & O'Connor, B. (2012). Crocodile tears: Facial, verbal and body language behaviours associated with genuine and fabricated remorse. *Law and Human Behavior*, *36*, 51–59.
- ten Brinke, L., & Porter, S. (2012). Cry me a river: Identifying the behavioral consequences of extremely high-stakes interpersonal deception. *Law and Human Behavior*, *36*, 469–477.
- ten Brinke, L., Porter, S., & Baker, A. (2012). Darwin the detective: Observable facial muscle contractions reveal emotional high-stakes lies. *Evolution and Human Behavior*, *33*, 411–416.
- ten Brinke, L., Stimson, D., & Carney, D. R. (2014). Some evidence for unconscious lie detection. *Psychological Science*, *25*, 1098–1105.
- Tripp, T. M., Bies, R. J., & Aquino, K. (2007). A vigilante model of justice. Revenge, reconciliation, forgiveness, and avoidance. *Social Justice Research*, *20*, 10–34.
- Vrij, A., Edward, K., & Bull, R. (2001). Police officers' ability to detect deceit: The benefit of indirect deception detection measures. *Legal and Criminological Psychology*, *6*, 185–196.
- Wade, J. B., Porac, J. F., Pollock, T. G., & Graffin, S. D. (2006). The burden of celebrity: The impact of CEO certification contexts on CEO pay and performance. *The Academy of Management Journal*, *49*, 643–660.
- Warren, G., Schertler, E., & Bull, P. (2009). Detecting deception from emotional and unemotional cues. *Journal of Nonverbal Behavior*, *33*, 59–69.
- Wilson, T. (2011, February 1). *The best legal advice is often an apology*. Retrieved from <<http://www.theglobeandmail.com/report-on-business/small-business/sb-growth/day-to-day/the-best-legal-advice-is-often-an-apology/article626797/>>.
- Wirtz, J., & Mattila, A. S. (2004). Consumer responses to compensation, speed of recovery and apology after a service failure. *International Journal of Service Industry Management*, *15*, 150–166.
- Wohl, M. J., Hornsmy, M. J., & Philpot, C. R. (2011). A critical review of official public apologies: Aims, pitfalls, and a staircase model of effectiveness. *Social Issues and Policy Review*, *5*, 70–100.
- Wong, E. M., Ormiston, M. E., & Haselhuhn, M. P. (2011). A face only an investor could love: CEOs' facial structure predicts their firms' financial performance. *Psychological Science*, *22*, 1478–1483.