



Sparking Anger and Anxiety: Why Intense Leader Anger Displays Trigger Both More Deviance and Higher Work Effort in Followers

Tanja Schwarzmüller¹ · Prisca Brosi¹ · Isabell M. Welpel^{1,2}

Published online: 16 December 2017
© Springer Science+Business Media, LLC, part of Springer Nature 2017

Abstract

While previous research has assumed that intense leader anger displays result in negative consequences, researchers have recently started to outline their potential for prompting followers to improve their performance. We explain these conflicting positions by demonstrating that leaders' anger intensity positively affects both deviance and work effort through triggering anger and anxiety in followers. We conducted two critical incident studies, replicating our results with different methodologies and controlling for potential alternative explanations. In line with theories on reciprocal emotions, supervisor-directed deviance became more likely with higher leader anger intensity because followers reacted with correspondingly more anger. However, in line with theories on complementary emotions, leaders' anger intensity was also positively related to followers' work effort due to followers' anxiety. These results were replicated when taking leaders' anger appropriateness into account as a potential moderator of the deviance-related path and when controlling for followers' feelings of guilt (an alternative explanation for followers' work effort). Our paper provides evidence that intense anger displays increase followers' work effort but also cautions leaders to show these, as the work effort caused by them is based on followers' intimidation and likely to be accompanied by deviant reactions. By considering the affective reactions triggered in followers, our paper integrates diverging theoretical perspectives on followers' reactions to leaders' anger intensity. Moreover, it is one of the first to disentangle the interpersonal effects that different expressions of the same emotion may have.

Keywords Leader anger · Anger intensity · Leadership · Anger · Anxiety · Critical incidents

Leaders regularly experience anger at work (Fitness, 2000; Glomb & Hulin, 1997). This finding is unsurprising considering that leadership is, essentially, a process of social influence (Yukl, 2012). As anger occurs in social situations in which one considers others to be responsible for negative outcomes (Clore & Ortony, 1991), any follower behaviors that disrupt leaders' influence are likely to provoke anger in leaders. This can be the case when followers perform poorly (Fitness, 2000), obstruct leaders' goals by missing important deadlines (Clore & Ortony, 1991), or behave offensively by ignoring leaders' instructions (Solomon, 1983).

When leaders express their experienced anger toward followers in these situations, their anger expressions can vary widely, from slight irritation to intense rage (Glomb, 2002). The more intensely leaders express their anger toward followers, the more followers can be expected to react negatively to it (Gibson & Callister, 2010). Theoretical accounts assume that these negative consequences result from intense anger displays being seen as violating commonly acknowledged norms in work contexts, i.e., that they are triggered by cognitive mechanisms occurring in followers (Geddes & Callister, 2007). Indeed, empirical research has shown that intense anger displays are likely to provoke deviant reactions on the part of others and worsen workplace relationships (Geddes & Stickney, 2011; Gibson, Schweitzer, Callister, & Gray, 2009).

Recently, however, research has started to question the assumption that intense anger displays lead only to detrimental consequences for leaders (Gibson & Callister, 2010). In contrast, it has been suggested that high-intensity anger displays may also lead to followers' performance improvement efforts, as they may cause followers to reflect on their own behavior

✉ Tanja Schwarzmüller
t.schwarzmueller@tum.de

¹ TUM School of Management, Technical University of Munich, Arcisstraße 21, 80333 Munich, Germany

² Bavarian State Institute for Higher Education Research and Planning, Munich, Germany

and adjust it accordingly (Lindebaum, Jordan, & Morris, 2016). Thus, both leader-directed deviance and work effort are likely to increase with the intensity of leaders' anger expressions.

While previous research has concentrated on cognitive explanations for the consequences of intense anger displays (Geddes & Callister, 2007; Lindebaum et al., 2016), we suggest an alternative explanatory mechanism by proposing that both types of consequences may result from followers' affective reactions. Based on functional accounts of emotions (Keltner & Kring, 1998; Van Kleef, 2009), we assume that intense leader anger displays spark both *reciprocal emotions* (i.e., anger; Friedman, Anderson, Brett, Olekalns, Goates, & Lisco, 2004) and *complementary emotions* (i.e., anxiety; Dimberg & Öhman, 1996) in followers. Whereas we expect followers' affective reaction of anger to lead to supervisor-directed deviance (Simon, Hurst, Kelley, & Judge, 2015), we expect followers' affective reaction of anxiety (which encompasses an unpleasant state of distress in response to a perceived threat; Brooks & Schweitzer, 2011) to result in increased work effort (Keltner, Young, & Buswell, 1997).

With these predictions, our paper makes several theoretical contributions. First, we extend research on leaders' emotion displays, which so far has usually focused on comparing the outcomes of different emotion displays, such as anger and happiness, with each other (Van Kleef, Homan, Beersma, Van Knippenberg, Van Knippenberg, & Damen, 2009; Van Kleef, Homan, Beersma, & Van Knippenberg, 2010). By examining consequences of emotional intensity—a thus far largely overlooked construct (Van Kleef, Homan, & Cheshin, 2012)—our study, in contrast, highlights how important it is to consider the effects that different expressions of the same emotion may have. By introducing followers' experiences of anger and anxiety as responses to the intensity of leaders' anger displays, our study thereby integrates diverging perspectives on followers' resulting behavioral reactions (Geddes & Callister, 2007; Gibson & Callister, 2010).

Second, our paper extends the Dual Threshold model of anger (Geddes & Callister, 2007), a theoretical model trying to predict whether anger will result in negative or positive outcomes. According to the Dual Threshold model, high-intensity anger expressions should be more likely to cause negative outcomes as they will be perceived as crossing the impropriety threshold in going beyond commonly accepted norms in the organization. Hence, the Dual Threshold model so far explains potential negative outcomes of anger displays by means of a cognitive mechanism. While this approach is valuable, the Emotions as Social Information model (Van Kleef, 2009, 2014) points out that emotion displays influence others not only via cognitive mechanisms, but also by triggering emotions in them. By outlining that negative reactions to intense leader

anger constitute a consequence of followers' anger, we thus integrate an affective mechanism into the Dual Threshold model (Geddes & Callister, 2007).

Third, our paper also extends the Emotions as Social Information model (Van Kleef, 2009, 2014). Up to date, this model assumes that whenever others react affectively to negative emotion displays (such as anger), this should lead to negative consequences for the emotion-displaying person. In addition, the model states that negative consequences can only be avoided when observers engage in cognitive processing of the respective emotion display. Interestingly, our paper shows that the nature of anger displays' consequences depends not only on whether affective or cognitive reactions occur, but also on the specific affective reactions triggered in others. Results indicate that angry affective reactions indeed lead to negative consequences for the emotion-displaying persons in being the target of others' deviance, while anxious affective reactions trigger work effort. While increased work effort appears to be desirable at first glance, highlighting anxiety as the explanatory affective mechanism behind this reaction puts into question how beneficial increased work effort in response to intense leader anger expressions really is. In this vein, differentiating between followers' reciprocal and complementary affective reactions might be an important step to improve our understanding of the consequences of leaders' emotion displays.

With regard to practical contributions, our paper validates leaders' assumption that angry outbursts may motivate followers to work harder (Lindebaum & Fielden, 2011; Parrott, 1993). However, leaders should be aware that these effects are driven by followers' experience of anxiety, an extrinsically controlled form of motivation (Ryan & Deci, 2000) that may negatively affect both employees' well-being and their performance (Gagné & Deci, 2005; Haslam, Atkinson, Brown, & Haslam, 2005; Weinstein & Ryan, 2010); moreover, these effects are accompanied by negative follower behaviors resulting from reciprocal anger experiences. Carefully weighing consequences of intense anger displays thus seems to be warranted.

To derive these implications, we conducted two studies. Study 1 applies a critical incident methodology to test the hypothesized relationships between leaders' anger intensity, followers' anger and anxiety, and followers' supervisor-directed deviance and work effort. In study 2, we amend the critical incident methodology by using an experimental approach to further scrutinize our theoretical model. In addition, we take the situational appropriateness of leaders' anger displays into account as a potential moderator of our deviance-related path (Geddes & Callister, 2007; Van Kleef, 2009) and include followers' guilt as an alternative affective reaction for our effort-related path (Morris & Keltner, 2000).

The Effect of Leaders' Anger Intensity on Followers' Affective and Behavioral Reactions

To derive our hypotheses, we follow the Emotions as Social Information model (Van Kleef, 2009, 2014), which proposes that the emotions that leaders display influence followers' affective reactions and, thereby, their behavioral reactions.

Direct Effect of Leaders' Anger Displays on Followers' Affective Reactions

In general, followers' affective reactions to leaders' emotion displays can occur in two different ways (Keltner & Kring, 1998; Van Kleef, 2009): First, followers can react in an *emotionally reciprocal* way, experiencing the same emotion as the emotion-displaying leader (Hatfield, Cacioppo, & Rapson, 1994). Second, they can react in an *emotionally complementary* way, experiencing emotions that are different from but directly respond to those of the emotion-displaying leader (Morris & Keltner, 2000).

Reciprocal Feelings of Anger The assumption that anger displays trigger reciprocal feelings of anger in others is broadly confirmed by previous research in the areas of social dilemmas and negotiation (Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2012), conflict situations (Friedman et al., 2004), performance feedback (Johnson & Connelly, 2014), and leadership (Koning & Van Kleef, 2015). Reciprocal feelings of anger are plausible considering that persons displaying anger to others are seen as blaming these others for negative events (Smith & Ellsworth, 1985), as well as being hostile (Clark, Pataki, & Carver, 1996) and coercive (Schwarzmueller, Brosi, Spörrle, & Welpel, 2017). All of these perceptions may cause followers to feel unfairly treated or badly managed (Lindebaum et al., 2016) and therefore spark reciprocal feelings of anger (Gibson & Callister, 2010). Theoretical accounts on anger in the workplace (Miron-Spektor & Rafaeli, 2009) and conflict spirals (Andersson & Pearson, 1999) further suggest that the resulting experiences of anger increase with the intensity of leaders' anger displays. Thus, we propose that the intensity of leaders' anger displays will positively affect the degree to which their followers experience anger.

Hypothesis 1a: *The intensity of leaders' anger displays positively affects followers' level of anger.*

Complementary Feelings of Anxiety Leaders' anger displays may also induce complementary affective reactions in followers. The typical complementary emotion to anger is anxiety, as studies in the domains of classical conditioning (Dimberg & Öhman, 1996), negotiation

(Lelieveld et al., 2012), and leadership (Lewis, 2000) have shown. Considering that anger is frequently perceived as aggression (Averill, 1982) and that anger displays are often used as an intimidation strategy by which leaders threaten their followers with negative consequences (Fitness, 2000), it seems plausible for followers to react with anxiety to leaders' anger displays. With higher-intensity anger displays suggesting that negative consequences are more likely to follow (Gibson et al., 2009), it also seems plausible to assume that the intensity of leaders' anger displays will positively affect the degree to which followers experience anxiety.

Hypothesis 2a: *The intensity of leaders' anger displays positively affects followers' level of anxiety.*

Indirect Effect of Leaders' Anger Displays on Followers' Behavior

Followers' Supervisor-Directed Deviance via Experienced Anger

A wealth of previous studies (e.g., Skarlicki & Folger, 1997; Van Kleef & Côté, 2007) has shown that, when feeling anger, one is more likely to engage in antisocial behaviors as a means of venting this anger (Bies & Tripp, 1998) and of getting even with those inducing it (Fitness, 2000). Moreover, research has already demonstrated that followers engage in supervisor-directed deviance (i.e., deliberate actions against the supervisor) such as gossiping and talking in a demeaning way about their leader to others (Mitchell & Ambrose, 2007; Tepper, Moss, Lockhart, & Carr, 2007) when they feel anger toward him or her (Ferris, Yan, Lim, Chen, & Fatimah, 2016; Simon et al., 2015). Thus, supervisor-directed deviance is likely to increase with followers' anger.

Hypothesis 1b: *Followers' level of anger positively affects their supervisor-directed deviance.*

Integrating our predictions for the a-path (effects of leaders' anger intensity on followers' anger) and the b-path (effects of followers' anger on their supervisor-directed deviance), the intensity of leaders' anger displays should thus positively affect followers' supervisor-directed deviance through followers' own level of anger.

Hypothesis 1c: *The intensity of leaders' anger displays positively affects followers' supervisor-directed deviance through followers' level of anger.*

Followers' Work Effort via Experienced Anxiety While followers' deviance is likely to result from their anger, followers' work effort can be assumed to arise from followers' anxiety.

Previous research has shown that feelings of anxiety trigger a desire to affiliate with (Schachter, 1959) and appease others and to make amends for one's wrongdoings (Keltner et al., 1997). The more anxious followers become in reaction to leaders' anger displays, the more they may try to calm the uneasy situation by pacifying the angry leader by engaging in reparative behaviors. A reparative behavior that followers might use to appease leaders is increased work effort (i.e., putting a higher amount of energy into their job; Kacmar, Zivnuska, & White, 2007; Seo, Bartunek, & Barrett, 2010). In sum, we therefore assume that followers' level of anxiety will be positively related to the amount of work effort they subsequently display.

Hypothesis 2b: Followers' level of anxiety positively affects their work effort.

In conclusion, our predictions for the a-path (effects of leaders' anger intensity on followers' anxiety) and the b-path (effects of followers' anxiety on their work effort) lead to a positive indirect effect of leaders' anger intensity on followers' work effort through followers' felt anxiety.

Hypothesis 2c: The intensity of leaders' anger displays positively affects followers' work effort through followers' level of anxiety.

Figure 1 visualizes the theoretical model underlying this paper.

Study 1—Method

With anger taking place in temporary episodes (Beal, Trougakos, Weiss, & Green, 2006), we decided to use an established critical incident procedure (Aquino, Tripp, & Bies, 2001, 2006) to elicit salient memories of leader anger. This approach is common in anger research (Averill, 1982; Gibson et al., 2009; Shaver, Schwartz, Kirson, & O'Connor, 1987) and is characterized by high ecological validity (Zheng, Van Dijke, Leunissen, Giurge, & De Cremer, 2016). Hence, we asked employees to describe a situation in which their leader had recently displayed anger at work (these descriptions were later on used to qualitatively code leaders' anger intensity) and to report their affective and behavioral reactions to it.

Participants

The participants, who were recruited via a large German online business network, were eligible for the study if they described a situation in which their leader had displayed anger during the past 6 months and indicated that they were employed and had a leader. Furthermore, participants'

description of leaders' anger displays needed to be detailed enough to allow for coding and had to include a situation in which their leader had displayed anger toward followers rather than toward unrelated third parties, such as suppliers or customers, regarding which followers' emotional reactions are likely to differ due to a lack of proximity and similarity (Miron-Spektor & Rafaeli, 2009). Not in all retained cases was leaders' anger toward followers directed (solely) at participants themselves; in some cases, it was also directed at a larger group of employees or at participants' co-workers, or its target was not clearly specified. In line with research on the Emotions as Social Information model (e.g., Van Kleef et al., 2009; Van Kleef & Côté, 2007), which has so far made similar predictions for all of these cases, we decided to keep all generally follower-directed anger incidents in our dataset.

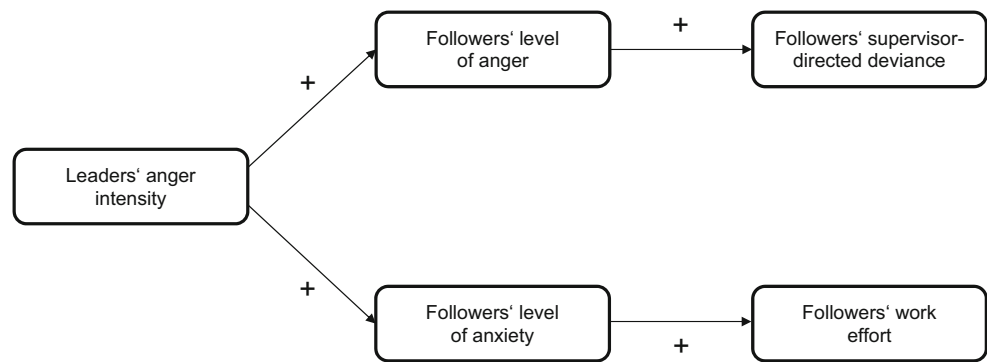
Out of the initial pool of 258 participants, 177 participants fulfilled the criteria specified above, 165 of which provided complete data for path modeling. Of the participants, 57.70% were male, and the mean age was about 35 years ($SD = 8.73$). Overall, participants were highly educated (76.70% had completed university) and had worked for an average of 12 years ($SD = 10.04$). More were occupied in service than production industries (61.90% compared to 38.10%), and most worked in sales (25.90%), marketing (11.50%), and IT (9.80%). Participants had worked with their current leader for an average of 2 years ($SD = 1.76$). Finally, independent sample t tests and χ^2 tests with Bonferroni corrections showed no significant differences regarding included and excluded participants' demographics (i.e., sex, age, industry, function, work experience, and time spent working with their leader), personality (i.e., emotional intelligence¹ and tendency to answer in a socially desirable way), or their reactions to the described anger incident (i.e., anger, anxiety, deviance, and work effort), indicating that systematic sampling biases are unlikely to be present in our data.

Procedure

In accordance with previous critical incident studies (Aquino et al., 2001, 2006; Zheng et al., 2016), participants were instructed to remember a recent situation in which their direct leader had displayed anger: "We would now like to ask you to recall a situation at work in which your direct leader displayed anger. If possible, please choose a situation that has occurred during the past six months. If this is not possible, please think of the most recent situation that comes to your mind." They were then asked to remember as many details about this situation as possible and to describe the situation ("What exactly had happened—why did your leader become angry?") and the way in which their leader had displayed anger ("How did your leader express his/her anger?") in two open-ended text fields.

¹ We assessed emotional intelligence with four items measuring participants' awareness of others' emotions ($\alpha = 0.87$; Jordan & Lawrence, 2009).

Fig. 1 Theoretical model of the effects of leaders' anger intensity on followers' affective reactions and behaviors



On average, participants' descriptions of the situations were 26.83 words long ($SD = 22.04$) and gave a good impression of the circumstances. In line with research indicating that emotions can be well measured by retrospectively asking participants to which degree they felt discrete emotions during a certain situation in the past (Barrett, 1997; Harmon-Jones, Bastian, & Harmon-Jones, 2016; Levine, Prohaska, Burgess, Rice, & Laulhere, 2001), participants were then asked to report their own affective and behavioral reactions to this event. The study was conducted online using a standard survey tool.

Measures

Leaders' Anger Intensity As was the case in other critical incident studies (e.g., Falbe & Yukl, 1992), we assessed the intensity with which leaders had displayed anger by qualitatively coding participants' open-ended descriptions of their leaders' expressions of anger ($M_{\text{wordcount}} = 17.36$, $SD_{\text{wordcount}} = 11.36$). Following previous studies (e.g., Fitness, 2000), we conducted the coding procedure in two steps: First, after reading all descriptions of leaders' anger expressions, we developed a coding scheme for the intensity of leaders' anger. Second, two raters (the first author and a research assistant) coded all leader anger descriptions independent of one another. To determine inter-rater reliability, we calculated Krippendorff's alpha (Hayes & Krippendorff, 2007) ($\alpha = 0.87$). Remaining disagreements between the two coders were solved by discussion.

In line with previous studies, greater anger intensity was assumed to be reflected in a greater visibility of leaders' anger to others (Gibson et al., 2009; Stickney & Geddes, 2016). Hence, with greater anger intensity usually come more explicit outward signs of anger, such as more nonverbal expressions (e.g., enhanced volume, rate of speech, angry facial expressions), verbal expressions (e.g., overtly stating one's anger, swearing, insulting, criticizing, threatening), and physical actions (e.g., slamming doors, pounding tables, throwing things) (Geddes & Callister, 2007; Spielberger, Reheiser, & Sydeman, 1995). Our coding scheme ranged from 1 (*very little anger*) to 5 (*very strong anger*). In order to achieve a

common understanding of the different anger intensities among coders, anger expression descriptions from our materials were used as exemplary anchors for these scale points. We coded anger expressions as comprising "very little anger" when there were almost no visible signs of anger (exemplary anchors: "He asked me to perform the task in a different way"; "He explained to me which mistake I had made and asked me to seek my colleagues' help when confronted with novel assignments"; "He remained calm and factual"). We coded an incident as involving a "medium level of anger" when anger was clearly recognizable (exemplary anchors: "He talked louder and turned recognizably angry. He complained that he should now even take employees' personal interests into account"; "He repeatedly told us that this was not possible [...], i.e., he verbally expressed his anger. His face turned red and his whole appearance was tense and angry; "He turned louder and made an annoyed impression"). Finally, we coded an incident as representing "very strong anger" when leaders' anger was extremely visible to outside observers (exemplary anchors: "He rushed into my room, slammed the door, shouted at me, accused me of maliciousness, and threatened me with massive consequences. He would not listen to my objections and soon pounded away furiously"; "Yelling, insulting, partly throwing things at people"; "The leader came into the room without greeting, at first holding himself back, than he literally exploded. What followed was loud yelling and personal verbal insults").

Followers' Affective Reactions Participants indicated the degree to which they themselves had felt anger and anxiety in the previously described situation on a scale from 1 (*not at all*) to 6 (*extremely strong*). Both constructs were measured with three items each (anger: angry, annoyed, irritable, $\alpha_{\text{Anger}} = 0.85$; anxiety: afraid, scared, nervous, $\alpha_{\text{Anxiety}} = 0.77$) taken from Van Katwyk, Fox, Spector, and Kelloway (2000) as well as Watson, Clark, and Tellegen (1988).

Followers' Behaviors Participants reported to what degree they had engaged in supervisor-directed deviance and displayed effort at work in the days after the described incident on a

seven-point scale (1 = *not at all*; 7 = *absolutely*). Both behaviors were measured with three items each. Items for supervisor-directed deviance ($\alpha = 0.90$) were adapted from Mitchell and Ambrose (2007) and Cohen-Charash and Mueller (2007), with a sample item being “On the days after the above-described situation, I gossiped about my leader.” Items for work effort ($\alpha = 0.90$) were adapted from Brockner, Grover, Reed and Dewitt (1992) and Brown and Leigh (1996), with a sample item being “On the days after the above-described situation, I tried to work as hard as possible.”

Control Variables We controlled for several participant characteristics as these seemed likely to affect both the described intensity of leaders’ anger displays and followers’ affective and behavioral reactions. First, we controlled for participants’ gender, because women have been generally found to perceive and experience more intense affective reactions (Fujita, Diener, & Sandvik, 1991) and show less deviance than men (Berry, Ones, & Sackett, 2007). We controlled for participants’ age, because older people seem to perceive and experience less intense negative emotions (Gross, Carstensen, Pasupathi, Tsai, Götestam Skorpen, & Hsu, 1997) and also engage less in deviant behavior than younger people (Berry et al., 2007). Moreover, as we asked participants questions that may trigger concerns about social desirability (e.g., descriptions of their leaders’ anger and their own emotions and behavior), we followed the recommendations of previous research (Aquino et al., 2006) by controlling for participants’ tendency to answer in a socially desirable way. This tendency was measured with 16 items ($\alpha = 0.69$) from Paulhus (1991) on a scale ranging from 1 (*not true*) to 7 (*very true*).

Results

Preliminary Data Analysis

Due to the concurrent measurement of followers’ affective and behavioral reactions, we conducted a confirmatory factor analysis to ensure that our mediating and criterion variables were distinct from one another. To do so, we compared the model fit of our proposed four-factor model (two affective reactions, two behavioral reactions) with the fit of a two-factor model in which the two variables constituting the deviance-related b-path of our model (followers’ anger and deviance) loaded on one common factor, while the two variables constituting the effort-related b-path of our model (followers’ anxiety and work effort) loaded on another common factor. Furthermore, we assessed the fit of a one-factor model in which all mediating and criterion variables loaded on one common method factor.

To determine model fit, we analyzed relative chi-square (χ^2/df), for which values should be below 3.00 (Kline, 2005), the root mean square error of approximation (RMSEA), for which values smaller than 0.08 indicate reasonable fit (Browne & Cudeck, 1992), and the comparative fit index (CFI), which ought to be greater than 0.95 to be considered good (Hu & Bentler, 1999). The fit for our proposed four-factor model was good ($\chi^2 [48] = 36.86$, ns ; $\chi^2/df = 0.77$; RMSEA = 0.00; CFI = 1.00). In comparison, the fit of the two-factor ($\chi^2 [53] = 338.69$, $p < .001$; $\chi^2/df = 6.39$; RMSEA = 0.18; CFI = 0.74; $\Delta\chi^2 [5] = 301.83$, $p < .001$) and one-factor ($\chi^2 [54] = 722.56$, $p < .001$; $\chi^2/df = 13.38$; RMSEA = 0.27; CFI = 0.38; $\Delta\chi^2 [6] = 685.70$, $p < .001$) models was significantly worse. These results provide evidence that our mediating and criterion variables do indeed reflect distinct constructs and indicate that common method variance on our proposed b-path does not constitute a serious threat to our study (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Descriptive Statistics and Correlations

The descriptive statistics and correlations of all variables are depicted in Table 1.

Hypotheses Testing

In order to simultaneously consider all variables in our model, hypotheses were tested making use of a path model in SPSS AMOS (Preacher & Hayes, 2008; Wood, Goodman, Beckmann, & Cook, 2008). As both followers’ anger and anxiety relate to negative affect (Watson et al., 1988), their error terms were allowed to correlate. The same applies to followers’ deviance and work effort, both of which constitute work-related follower behaviors (Sakurai & Jex, 2012). Following the recommendation of previous research (Cheung & Lau, 2008; Preacher & Hayes, 2004), indirect effects resulted from the product of the a- and b-paths and were estimated on the basis of 10,000 bootstrap samples with bias-corrected confidence intervals. To allow for truly unbiased estimates of our indirect effects, we also included the direct effects of leaders’ anger intensity on our two outcome variables (followers’ deviance and work effort) in our path model (Shrout & Bolger, 2002). Based on the outlined theoretical consideration that participants’ sex, age, and tendency to answer in a socially desirable way might affect the described intensity of leaders’ anger displays and followers’ affective and behavioral reactions to it, we controlled for these variables by letting them affect our predictor, mediator, and outcome variables. While followers’ sex and age did not significantly affect any of our variables, social desirability exerted a significantly positive effect on the described leader anger intensity ($\beta = 0.15$, $p < .05$) and followers’ reported work effort ($\beta = 0.17$, $p < .05$). In sum, our modeling approach

Table 1 Descriptive statistics, correlations, and reliabilities of all variables in study 1

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Followers' gender	0.42	0.50								
2. Followers' age	34.72	8.73	-.13							
3. Followers' social desirability	4.46	0.68	.02	.10	(.69)					
4. Leaders' anger	3.17	1.07	.08	-.05	.15*					
5. Followers' anger	3.33	1.39	.08	-.01	.10	.29***	(.85)			
6. Followers' anxiety	2.60	1.30	.10	-.02	-.07	.34***	.46***	(.77)		
7. Followers' deviance	2.67	1.79	.08	-.05	-.03	.35***	.44***	.16*	(.90)	
8. Followers' work effort	3.53	1.77	-.02	-.02	.11	.12	.09	.42***	-.09	(.90)

Note. Followers' gender is coded as 0 = male and 1 = female; *M* = mean value, *SD* = standard deviation; scale reliabilities (Cronbach's alpha) are indicated in brackets

* $p < .05$; ** $p < .01$; *** $p < .001$

resulted in a good overall model fit ($\chi^2 [3] = 5.38, ns; \chi^2/df = 1.79$; RMSEA = 0.07; CFI = 0.98).

To test our hypotheses, we first examined the influence of leaders' anger intensity on followers' anger and their resulting deviance. There was a positive effect ($\beta = 0.27, p < .001$) of leaders' anger intensity on followers' anger (hypothesis 1a). Followers' anger, in turn, positively affected their supervisor-directed deviance ($\beta = 0.42, p < .001$) (hypothesis 1b). The resulting indirect effect (hypothesis 1c) of leaders' anger intensity on followers' deviance via followers' anger was significantly positive ($a \times b = 0.12, 95\% \text{ CI } [0.05, 0.20], p < .001$). All hypotheses for the deviance-related path of our model were thus confirmed.

Second, we analyzed the influence of leaders' anger intensity on followers' anxiety and followers' resulting work effort. Results showed that leaders' anger intensity positively ($\beta = 0.33, p < .001$) affected followers' anxiety (hypothesis 2a), which in turn positively affected their work effort ($\beta = 0.50, p < .001$) (hypothesis 2b). The resulting indirect effect (hypothesis 2c) of leaders' anger intensity on followers' work effort via followers' anxiety was significantly positive ($a \times b = 0.17, 95\% \text{ CI } [0.09, 0.29], p < .001$). All hypotheses for the effort-related path of our model were hence also confirmed. Figure 2 gives detailed information on the other

relationships included in our model; Table 2 shows all indirect, direct, and total effects of leaders' anger intensity.

Discussion

The results of this critical incident study provide evidence for our proposition that the intensity of leaders' anger expressions elicits both reciprocal and complementary affective reactions in followers that lead to more deviance and work effort. The more intense leaders' anger expressions were in terms of non-verbal and verbal components as well as physical actions, the more followers experienced reciprocal feelings of anger, which led to more supervisor-directed deviance. In line with our reasoning, the intensity of leaders' anger expressions also led to complementary feelings of anxiety, which translated into higher follower work effort.

Although these results fully support our assumption that followers' anger and anxiety constitute explanatory mechanisms for followers' deviance- and effort-related reactions to leaders' anger intensity, we proceeded to subject our hypothetical model to further testing. First, although leaders' anger intensity was coded, while followers' emotional and behavioral reactions were reported, participants provided all the

Fig. 2 Standardized path coefficients for the effects of leaders' anger intensity on followers' affective reactions and behaviors in study 1 ($N = 165$). For reasons of clarity, the effects of control variables were omitted in this figure. *** $p < .001$

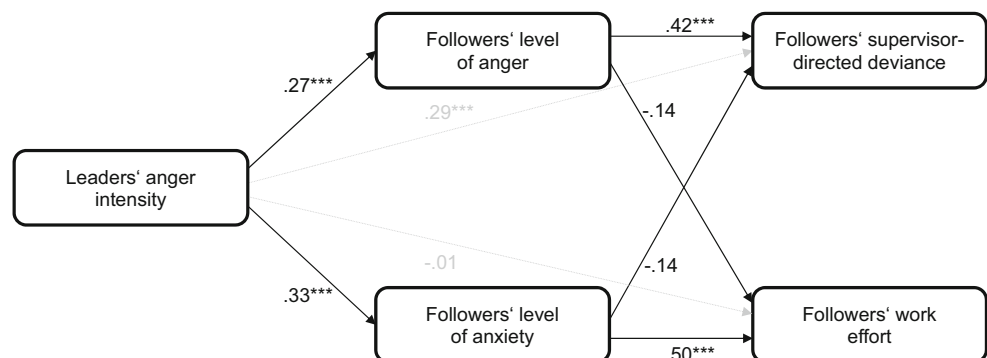


Table 2 Effect decomposition for standardized indirect, direct, and total effects of leaders' anger intensity on followers' behavior in the empirical path model of study 1

	Followers' supervisor-directed deviance		Followers' work effort	
	β	SE	β	SE
Indirect effect via...				
...Followers' anger	.12***	0.04	-.04	0.03
...Followers' anxiety	-.05	0.03	.17***	0.05
Direct effect	.29***	0.05	-.01	0.07
Total effect	.36***	0.06	.11	0.08

*** $p < .001$

information for study 1 at the same time, which might threaten the internal validity of our findings (Podsakoff, MacKenzie, & Podsakoff, 2012). Although our statistical analyses suggested that this was not the case, we nevertheless aimed to experimentally control the intensity of leaders' anger displays in study 2 to increase the internal validity of our findings.

Second, one might argue that our participants in study 1 were more likely to recollect inappropriate instead of appropriate anger expressions, as the former might have been more salient to them due to causing expectancy violations (Burgoon, 1993). Both the Dual Threshold model (Geddes & Callister, 2007) and the Emotions as Social Information model (Van Kleef, 2009, 2014) suggest that leaders' *inappropriate* anger expressions (i.e., those anger expressions seen as incorrect for the situation and not in correct proportion to the evoking circumstances; Shields, 2005) provoke negative follower reactions. In consequence, our model might be restricted to situations in which leaders' anger expressions are seen as inappropriate, or, respectively, appropriateness might constitute an alternative explanation for our demonstrated effects. Therefore, in addition to experimentally controlling leaders' anger intensity in study 2, we explicitly asked participants to report leader anger displays of either low or high appropriateness, so as to account for potential main effects of anger (in)appropriateness and its interaction effects with leaders' anger intensity.

Third, while anxiety is the typical complementary emotion to anger (Dimberg & Öhman, 1996; Lelieveld et al., 2012), anger displays, which encompass blaming others for a failure (Clore & Ortony, 1991), might also trigger *guilt* in others (Dimberg & Öhman, 1996), as guilt is experienced when one sees one's own actions as causing a negative event (Tangney, Miller, Flicker, & Barlow, 1996). Like anxiety, guilt triggers a desire to repair threatened relationships (Keltner & Buswell, 1997; Morris & Keltner, 2000). Thus, followers' experience of guilt might constitute an alternative explanation for followers' increased work effort. For this reason, we included guilt as an alternative mediating mechanism in study 2.

Study 2—Method

We again relied on a critical incident procedure, asking participants to recall a situation in which their leader had expressed anger toward them. However, in this study we randomly assigned participants to report a situation in which this anger was of either high or low intensity and of either high or low appropriateness, resulting in a 2 (anger intensity: high or low) \times 2 (anger appropriateness: high or low) experimental design. Specifying the type of situation that participants are to remember comes with the benefit of giving them a frame of reference while maintaining a high degree of external validity (Zheng et al., 2016). To account for alternative indirect effects, we also assessed followers' affective reaction of guilt.

Participants

A total of 335 participants were recruited via a large German online business network and through personal contacts. As in study 1, participants had to remember a situation in which their leader had displayed anger to them and had to be employed and have a leader. Six participants were excluded prior to the analyses as they reported that their leaders had never displayed any anger to them, one as she had answered none of the questions regarding her own reactions to the recalled situation. This resulted in a final sample of 328 participants of whom 297 provided complete data for subsequent path analysis. Participants had a mean age of 34 years ($SD = 11.05$), and 48% of them were male. In general, participants were highly educated (60.80% had completed university) and had worked for an average of 12.52 years ($SD = 11.15$). More were occupied in service than in production industries (77.30% compared to 22.70%), and they mostly worked in sales (15%), human resources (9.30%), and IT (9%). Participants had worked with their current leader for approximately 3 years ($SD = 3.58$). Independent sample t tests and χ^2 tests with Bonferroni corrections showed no significant differences regarding included and excluded participants' demographics (i.e., sex, age, industry, function, work experience, and time spent working with their leader) or personality (i.e., agreeableness² and tendency to answer in a socially desirable way), again speaking against systematic sampling biases.

² We measured participants' agreeableness with 12 items ($\alpha = 0.74$) from the NEO-FFI by Costa & McCrae (1985) taken from its German translation by Borkenau & Ostendorf (2008). We did so as one might expect agreeable followers, who are very sensitive to interpersonal conflict, to react more strongly to their leaders' anger intensity. However, statistical analyses indicated that agreeableness did not significantly affect followers' anger ($\beta = -0.02$, ns) and anxiety ($\beta = 0.07$, ns) nor their deviance ($\beta = -0.04$, ns) and work effort ($\beta = -0.05$, ns). In addition, when controlling for participants' agreeableness in our path model, results for our basic model remained comparable in size and direction, indicating that participants' agreeableness does not exert a central influence on our model.

Procedure

Participants were randomly assigned to recall a recent situation (during the past 6 months or as recently as possible) in which their direct leader had displayed anger of either high or low intensity and of either high or low appropriateness. To avoid that participants recalled leader anger directed toward other followers (e.g., their colleagues), we specified that the anger displays should have been directed toward participants themselves:

“We would now like to ask you to recall a situation at your current workplace in which your direct leader has displayed *strong* (*/weak*) anger that was directed toward yourself and in which you thought that this anger display was *appropriate* (*/inappropriate*).

Hereby we mean that 1) your leaders’ anger was targeted at yourself, 2) your leader was *very angry* (*/a bit angry*) and 3) you were of the opinion that your leaders’ anger display was *understandable, justified and appropriate* (*/not understandable, not justified and not appropriate*).”

The definition of appropriateness was taken from Van Kleef & Côté (2007). On average, participants’ descriptions of the situation were 29.75 words long ($SD = 26.83$) and gave a good impression of the circumstances at hand. The described situation had occurred on median 10 weeks ago ($SD = 46.38$), and participants indicated that they could remember the situation well ($M = 5.89$, $SD = 1.32$, on a scale from 1 = *not at all* to 7 = *very well*) and were sure about their answers ($M = 5.92$, $SD = 1.16$, on a scale from 1 = *not at all sure* to 7 = *very sure*). Participants then reported their behavioral and affective reactions to the situation. The study was conducted online using a standard survey tool to ensure anonymity.

Measures

Followers’ Affective Reactions Participants indicated to what degree they themselves had felt anger and anxiety in reaction to the situation on the same scales as in study 1 ($\alpha_{\text{Anger}} = 0.85$; $\alpha_{\text{Anxiety}} = 0.83$). In addition, we also measured participants’ feelings of guilt with three items (repentant, guilty, blameworthy; $\alpha = .88$) taken from Izard, Dougherty, Bloxom and Kotsch (1974).

Followers’ Behaviors Participants were asked to what degree they had engaged in supervisor-directed deviance ($\alpha = 0.92$) and how much effort they had exerted at work ($\alpha = 0.94$) in the days after the described situation, on the same scales as in study 1.

Manipulation Checks To ensure that our anger intensity manipulation had worked, we asked participants how strongly their leader had displayed anger (items: angry, annoyed, irritable, $\alpha = 0.87$, scale: 1 = *not at all* to 7 = *extremely strong*) in the situation they had just described. To ensure that our anger appropriateness manipulation had worked, we asked participants to indicate how appropriate they perceived their leaders’ anger display to be (measured with six items, such as justified and understandable ($\alpha = 0.90$), taken from Van Kleef & Côté, 2007) on a scale from 1 (*not at all*) to 7 (*totally*).

Control Variables As in study 1, we controlled for participants’ gender, age, and tendency to answer in a socially desirable way ($\alpha = 0.69$). In addition, we controlled for the number of weeks that had passed since the described anger incident to account for potential memory effects (Aquino et al., 2001, 2006).

Results

Preliminary Data Analysis

To test the distinctiveness of our mediating and criterion variables, we started by conducting a confirmatory factor analysis on followers’ affective and behavioral reactions. The fit for the five-factor model (differentiating between followers’ anger, anxiety, guilt, deviance, and work effort) was good ($\chi^2 [80] = 121.70$, $p < .01$; RMSEA = 0.04; CFI = 0.99). In comparison, the fit of a two-factor model that differentiated only between a deviance-related and an effort-related pathway ($\chi^2 [89] = 1289.79$, $p < .001$; RMSEA = 0.20; CFI = 0.65; $\Delta\chi^2 [9] = 1168.09$, $p < .001$), or a one-factor model in which all constructs loaded on a common method variance factor ($\chi^2 [90] = 2508.26$, $p < .001$; RMSEA = 0.29; CFI = 0.29; $\Delta\chi^2 [10] = 2386.56$, $p < .001$), was significantly worse.

Descriptive Statistics and Correlations

The descriptive statistics and correlations of all variables are presented in Table 3.

Manipulation Checks

A leaders’ anger intensity (high vs. low) \times appropriateness (high vs. low) analysis of covariance on perceived anger intensity revealed a significant main effect of leaders’ anger intensity ($F [1, 297] = 11.39$, $p < .001$, $\eta^2 = 0.04$). Participants in the high anger intensity conditions ($M = 4.30$, $SD = 1.22$) rated their leader as showing significantly more anger than did participants in the low anger intensity conditions ($M = 3.81$, $SD = 1.27$). In contrast, there neither was a main effect of leaders’ anger appropriateness ($F [1, 297] = 0.96$, ns, $\eta^2 = .00$) nor an

Table 3 Descriptive statistics, correlations, and reliabilities of all variables in study 2

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Followers' gender	0.52	0.50											
2. Followers' age	34.11	11.05	-.04										
3. Followers' social desirability	4.49	0.71	.05	.21***	(.69)								
4. Number of weeks since situation	24.63	46.38	.03	.11*	-.02								
5. Leaders' anger appropriateness	0.45	0.50	.01	.02	-.00	.05							
6. Leaders' anger intensity	0.51	0.50	.07	-.07	-.08	.08	-.01						
7. Followers' guilt	2.16	1.28	-.02	-.13*	.06	-.02	.21***	.10	(.88)				
8. Followers' anger	3.47	1.30	.04	.03	-.05	.02	-.13*	.18***	-.12*	(.85)			
9. Followers' anxiety	2.57	1.30	.06	-.08	-.01	.09	.04	.15**	.55***	.09	(.83)		
10. Followers' deviance	3.09	2.04	.19***	-.16**	-.18**	.02	-.07	.10	-.15**	.47***	.12*	(.92)	
11. Followers' work effort	3.85	1.86	.01	-.13*	.16**	.01	.06	.11*	.47***	-.02	.39***	-.14*	(.94)

Note: Followers' gender is coded as 0 = male and 1 = female; *M* = mean value, *SD* = standard deviation; leaders' anger appropriateness is coded as 0 = low appropriateness and 1 = high appropriateness; leaders' anger intensity is coded as 0 = low intensity and 1 = high intensity; scale reliabilities (Cronbach's alpha) are indicated in brackets

* $p < .05$; ** $p < .01$; *** $p < .001$

interaction effect between leaders' anger intensity and appropriateness ($F [1, 297] = 3.33$, ns, $\eta^2 = .01$) concerning perceived leader anger intensity.

Regarding perceived anger appropriateness, there was a significant main effect of leaders' anger appropriateness ($F [1, 297] = 34.56$, $p < .001$, $\eta^2 = 0.10$), with participants in the high appropriateness conditions ($M = 4.15$, $SD = 1.79$) rating their leaders' anger as significantly more appropriate than did participants in the low appropriateness conditions ($M = 3.03$, $SD = 1.58$). In contrast, there was neither a main effect of leaders' anger intensity ($F [1, 297] = 0.12$, ns, $\eta^2 = 0.00$) nor an interaction effect between leaders' anger appropriateness and intensity ($F [1, 297] = 0.01$, ns, $\eta^2 = 0.00$) concerning perceived anger appropriateness.

Taken together, these results indicate that our experimental manipulations were successful and led participants to recollect the types of anger events that they were asked to remember.

Hypotheses Testing

As in study 1, we tested our hypotheses with a path model in SPSS AMOS, making use of bootstrapping with bias-corrected confidence intervals to test for indirect effects.

Basic Model The overall model fit of our proposed model was again appropriate ($\chi^2 [10] = 24.70$, $p < .01$; $\chi^2/df = 2.47$; RMSEA = 0.07; CFI = 0.93). Regarding our control variables, the number of weeks that had passed since the anger event did not significantly affect any of our model variables. However, female gender was positively related to deviance ($\beta = 0.20$, $p < .001$), while age ($\beta = -0.13$, $p < .01$) and social desirability ($\beta = -0.16$, $p < .01$) negatively affected deviance ratings.

Additionally, age was negatively related to work effort ($\beta = -0.17$, $p < .001$), whereas social desirability was positively related to it ($\beta = 0.22$, $p < .001$). Concerning our hypotheses, we then examined the influence of leaders' anger intensity on followers' deviance via followers' own level of anger. Leaders' anger intensity had a positive effect ($\beta = 0.22$, $p < .001$) on followers' level of anger (hypothesis 1a), which in turn positively affected followers' supervisor-directed deviance ($\beta = 0.47$, $p < .001$) (hypothesis 1b). The resulting indirect effect (hypothesis 1c) of leaders' anger intensity on followers' deviance via followers' anger was significantly positive ($a \times b = 0.20$, 95% CI [0.10, 0.32], $p < .001$). We then analyzed the influence of leaders' anger intensity on followers' work effort via followers' own level of anxiety. Results showed that leaders' anger intensity positively ($\beta = 0.12$, $p < .05$) affected followers' level of anxiety (hypothesis 2a). Followers' anxiety in turn positively ($\beta = 0.37$, $p < .001$) affected their work effort (hypothesis 2b). The resulting indirect effect (hypothesis 2c) of leaders' anger intensity on followers' work effort via followers' anxiety was significantly positive ($a \times b = 0.09$, 95% CI [0.00, 0.18], $p < .05$). Overall, these results mirror those of study 1 and thus provide further evidence for our basic model.

Robustness Checks We continued by checking the robustness of our model by including guilt as an additional mediator for our two outcome variables and by including appropriateness as an additional main effect as well as moderator for our proposed relationships. In comparison to our basic model, doing so resulted in a significant decrease in model fit ($\chi^2 [21] = 144.31$, $p < .001$; $\chi^2/df = 6.87$; RMSEA = 0.14; CFI = 0.82; $\Delta\chi^2 [11] = 119.33$, $p < .001$).

To check the robustness of our deviance-related path, we examined leaders' anger appropriateness as an additional and moderating variable. There was a significant main effect of leaders' anger appropriateness on followers' anger ($\beta = -0.16, p < .05$), but no significant interaction effect with intensity ($\beta = 0.03, ns$), while the effect of leaders' anger intensity on followers' anger remained significant ($\beta = 0.20, p < .01$). As followers' anger again positively affected followers' supervisor-directed deviance ($\beta = 0.43, p < .001$), we were able to replicate the significantly positive indirect effect of leaders' anger intensity on followers' deviance via followers' anger ($a \times b = 0.18, 95\% \text{ CI } [0.05, 0.31], p < .01$). The deviance-related path was thus robust even when taking the appropriateness of leaders' anger displays into account.

To check the robustness of our effort-related path, we examined the effect of leaders' anger intensity on followers' guilt and found no such relation ($\beta = 0.09, ns$). Instead, a significant effect of leaders' anger appropriateness emerged ($\beta = 0.22, p < .01$), indicating that followers' guilt is driven by the appropriateness rather than the intensity of leaders' anger displays. Mediated via followers' guilt, the appropriateness of leaders' anger displays exerted a significantly positive indirect effect on followers' work effort ($a \times b = 0.14, 95\% \text{ CI } [0.04, 0.26], p < .01$). Not surprisingly, the effect of leaders' anger intensity on followers' work effort via followers' anxiety hence remained stable when including followers' guilt as a mediator ($a \times b = 0.08, \text{ CI } [0.02, 0.17], p < .01$), as leaders' anger intensity continued to positively affect followers' anxiety ($\beta = 0.18, p < .05$), which in turn positively affected followers' work effort ($\beta = 0.21, p < .001$). Thus, followers' guilt does not constitute an alternative explanatory mechanism for the effort-related path in our model.

Figure 3 gives detailed information on the relationships contained in our model, Table 4 shows all indirect, direct, and total effects of leaders' anger intensity.

Discussion

Experimentally controlling for the intensity of the reported leader anger displays and thereby increasing the internal validity of our model, study 2 replicates our finding that the intensity with which leaders display anger toward their followers relates to both followers' supervisor-directed deviance and work effort due to the anger and anxiety triggered in them. In addition, it provides evidence for the robustness of our deviance-related path, as leaders' anger intensity continued to exert a significantly positive indirect effect on followers' deviance when including main effects of and interaction effects with leaders' anger appropriateness in our model. Moreover, study 2 also speaks to the robustness of our effort-related path by showing that followers' anxiety heightens their work effort even when controlling for followers' guilt, while the appropriateness of leaders' anger displays likewise triggered more work effort due to followers' higher levels of guilt.

General Discussion

By means of two studies, our paper introduces followers' affective reactions as an explanation for why intense leader anger displays increase both followers' negative behavior (Geddes & Callister, 2007; Geddes & Stickney, 2010) and intentions to improve their performance (Lindebaum et al., 2016). Specifically, we confirm followers' reciprocal anger and complementary anxiety as explanatory affective mechanisms for followers' deviance and work effort. Results were also confirmed when controlling for situational appropriateness as potential boundary condition for followers' anger and followers' guilt as an alternative affective mechanism for followers' anxiety. In addition, our effects seem to be generalizable from situations in which leader anger is generally

Fig. 3 Standardized path coefficients for the effects of leaders' anger intensity on followers' affective reactions and behaviors in study 2 ($N = 297$). For reasons of clarity, the effects of control variables were omitted in this figure. * $p < .05$; ** $p < .01$; *** $p < .001$

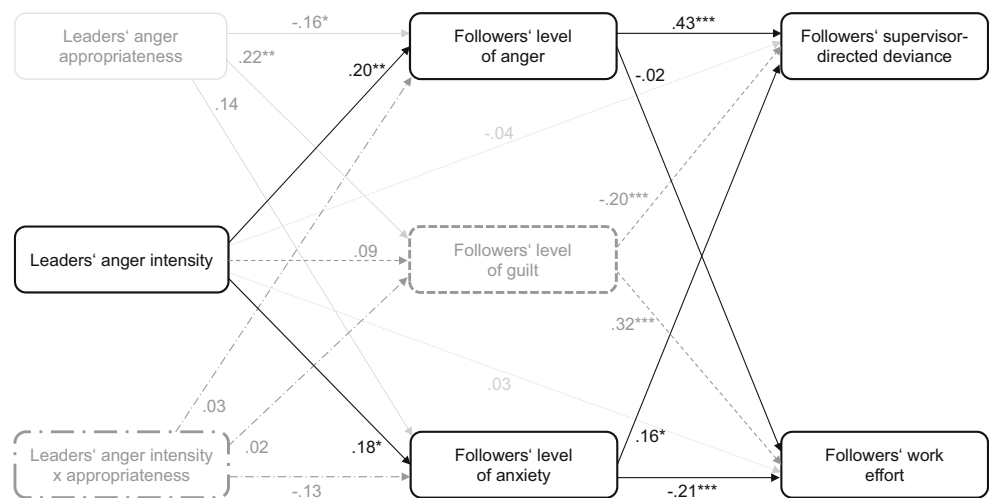


Table 4 Effect decomposition for standardized indirect, direct, and total effects of leaders' anger intensity on followers' behavior in the empirical path model (robustness check) of study 2

	Followers' supervisor-directed deviance		Followers' work effort	
	β	SE	β	SE
Indirect effect via...				
...Followers' anger	.18**	0.07	-.01	0.03
...Followers' anxiety	.06*	0.04	.08**	0.04
...Followers' guilt	-.04	0.03	.06	0.04
Direct effect	-.04	0.07	.03	0.07
Total effect	.06	0.07	.10	0.08

* $p < .05$; ** $p < .01$

follower-directed (study 1) to situations in which it is clearly directed at participants themselves (study 2). This is an interesting finding, which suggests that followers react with anger and anxiety if they themselves are in the focus of leaders' anger intensity, but also if they are not its central target.

The deviance-related path showed that the more intensely leaders express their anger, the more anger they stir in followers, which in turn provokes these to show deviance toward their leaders. Notably, results did not indicate that followers' anger reactions changed when leaders' intense anger displays were appropriate to the situation. Thus, intense anger displays on part of leaders may lead to angry and deviant follower reactions no matter how justified and reasonable they might seem based on the current circumstances. Even when followers make a serious work-related mistake (such as missing an important deadline and thereby losing a main client), they may strike back to intense anger displays by their leader.

Furthermore, according to the effort-related path, followers' anxiety increases with the intensity of their leaders' anger displays and leads them to put more effort into their work. Including guilt as alternative affective mechanism further indicated that it is actually followers' feelings of anxiety—not their feelings of guilt—that lead followers to increase their work effort when leaders' anger becomes more intense. In contrast, followers' feelings of guilt were uniquely elicited by the appropriateness of leaders' anger displays, also leading to higher work effort in followers. Thus, when leaders' anger is justified and understandable, followers exert more work effort due to feeling guilty, while—independently from appropriateness—the intensity of leaders' anger displays leads to higher work effort due to eliciting anxiety.

Implications for Theory

Our results have important implications for theory. First of all, our paper extends the Emotions as Social Information model (Van Kleef, 2014), which has proposed that

whenever observers react affectively to others' anger displays (i.e., come to feel emotions themselves), this will lead to negative outcomes for the anger-displaying person. Refining this position, the results of our studies show that observers' reactions depend on the specific negative emotions that are triggered in them; that is, deviant reactions result from observers' reciprocal anger, while increased work effort is triggered by observers' complementary feelings of anxiety. Both deviance and work effort thus follow from the affective reactions evoked in observers, outlining the importance of distinguishing between different negative affective reactions in order to integrate diverging perspectives (Geddes & Callister, 2007; Gibson & Callister, 2010) on the specific nature of followers' reactions to leaders' anger intensity.

In addition, by providing an affective explanation for why intense leader anger displays might increase both deviance and work effort, our paper contributes to the Dual Threshold Model of anger (Geddes & Callister, 2007). This model has so far concentrated on explaining negative outcomes of intense anger displays by cognitive mechanisms (i.e., by suggesting that intense anger displays violate commonly acknowledged norms in work contexts and therefore trigger negative reactions in others). By showing that negative reactions may also result from reciprocal feelings of anger, we integrate the affective mediating mechanisms outlined in the Emotions as Social Information model (Van Kleef, 2009, 2014) into the Dual Threshold Model, thereby broadening its focus.

Finally, we extend the general research on leaders' emotion displays (Johnson & Connelly, 2014; Van Kleef et al., 2009; Van Kleef et al., 2010), which has so far primarily concentrated on comparing the effects of anger displays to those of other emotions (e.g., happiness or disappointment). In contrast to this dominant approach, our paper focuses on the intensity with which anger itself is expressed, thus making the paper one of the first to disentangle the effects that different expressions of the same emotion may have on others. In doing so, it sheds light on a relatively neglected area of study (Van Kleef et al., 2012) and shows that the way in which specific emotions are expressed can make a crucial difference for the interpersonal effects associated with them.

Implications for Practice

Our findings also have valuable implications for leadership practice. In line with previous research (Geddes & Stickney, 2011; Gibson et al., 2009), our studies show that the more strongly leaders show their anger, the more they can expect followers to strike back by engaging in negative behaviors to vent their own anger in response. Despite these negative outcomes of anger displays, our results also provide an explanation for why it might be tempting for leaders to express their anger with high intensity. In line

with Parrott's (1993) notion that leaders' anger displays toward followers "may make them [followers] more anxious about their situations and induce more motivation and concentration" (p. 290), followers can be expected to work harder in reaction to intense leader anger displays.

However, it is important to recognize that this enhanced work effort results from followers' feelings of anxiety. Feelings of anxiety may ultimately harm organizations by impairing followers' performance and by increasing sick leaves and turnover (Haslam et al., 2005). In addition, self-determination theory (Ryan & Deci, 2000) suggests that followers' higher work effort in reaction to leaders' anger is unlikely to result from their intrinsic motivation; instead, intense leader anger displays will probably trigger controlled motivation, namely, introjected regulation, in followers. Followers will thus not be really motivated to work hard, but will do so primarily to reduce the feelings of anxiety imposed on them by their leader. In contrast to intrinsically motivated followers, followers motivated by such controlled types of motivation will experience lower well-being and also exhibit worse performance (Gagné & Deci, 2005; Weinstein & Ryan, 2010), as their basic need for autonomy is not met (Ryan & Deci, 2000). While intense anger displays might lead to higher follower work effort, one may thus question the degree to which this behavior is actually desirable for leaders. Both leaders who report using intense anger as a deliberate influence strategy (Lindebaum & Fielden, 2011; Lindebaum et al., 2016) and leaders who at times accidentally display intense anger toward their followers should thus be aware of the fact that followers' higher resulting effort is not as desirable for them as it may seem.

In addition to followers' feelings of anxiety, followers' feelings of guilt were also positively related to work effort. Yet, while followers' anxiety was elicited by leaders' anger intensity, followers' guilt was evoked by leaders' anger appropriateness. Guilt, in contrast to anxiety, appears to be a healthy emotion that helps to maintain relationships (Baumeister, Stillwell, & Heatherton, 1994) as long as followers are provided with the opportunity to repair their wrongdoing (Inbar, Pizarro, Gilovich, & Ariely, 2013; Nelissen & Zeelenberg, 2009). In sum, our results thus indicate that, if at all, leaders may be best advised to express low intensity anger when this is situationally appropriate.

Limitations and Avenues for Future Research

Despite our paper's valuable contributions to research and practice, some limitations and opportunities for future research deserve consideration. We tested our hypotheses in two critical incident studies. This method is especially valuable for studying emotional episodes, which are temporary in nature and therefore hard to grasp otherwise (Averill, 1983). Moreover, they come with a high degree of external validity

and use a context that is personally meaningful to participants (Zheng et al., 2016). Despite these obvious advantages, however, this method is limited in that it relies on participants' accurate memory of past events. Nonetheless, we are confident that memory demands did not exert a strong influence on our results. In line with previous research (Aquino et al., 2001, 2006; Zheng et al., 2016), we asked participants to describe a recent situation to reduce memory demands. In study 2, participants reported that this situation had occurred around 10 weeks ago. When statistically controlling for the time span that had passed since the described situation, results remained stable, speaking to our studies' robustness against potential memory biases. Also indicating against potential biases, participants in study 2 stated that they had a good memory of the described situation and felt confident reporting about it. This good memory is consistent with the notion that leader anger displays constitute strong interpersonal events, meaning that they should be easy to remember (Fitness, 2000; Lindebaum & Fielden, 2011). Moreover, research on the recall of experienced emotions shows that the correlations between momentary and retrospective ratings of emotions remain substantial even after several months (Barrett, 1997; Levine et al., 2001), indicating that humans are also able to accurately report on their own emotional reactions to such a situation in hindsight. Still, future research might benefit from actually observing followers' affective and behavioral reactions to more or less intense leader anger displays, for example, in laboratory experiments, or make use of experience sampling methodologies to reduce memory demands.

Another potential limitation concerns the exclusion of several participants as they were unable to recall or describe leader anger situations. We could not detect any significant differences regarding included and excluded participants' demographics, certain personality dimensions, and the focal affective and behavioral reactions to the anger situation. Nevertheless, it might still be the case that participants who were unable to provide adequate descriptions of leader anger situations differed from those who were able to do so. For example, followers high in trait-negative affect or low in emotional stability might more easily remember leader anger incidents as they are more sensitive to the negative aspects of their (working) life (Clark & Watson, 1991; Watson & Clark, 1984). Although we had to exclude only a limited number of participants, we cannot completely rule out the possibility that the validity of our findings is constrained to persons with a disposition for negative affect and low emotional stability. Future studies ought to control for these personality traits in order to further test the generalizability of our findings.

Furthermore, whereas in our studies the intensity of leaders' anger displays was either coded by independent raters (study 1) or experimentally manipulated (study 2), speaking to the robustness of our a-paths, followers' affective and behavioral reactions were rated by the same source (followers),

which opens the possibility for common method variance on the examined b-paths. Although additional research examining the consequences of followers' affective reactions with more sophisticated methods would be valuable, we took several recommended methodological and statistical measures to reduce concerns about this bias (Podsakoff et al., 2003; Podsakoff et al., 2012). Specifically, we guaranteed participants' full anonymity, used different scale endpoints for mediating and criterion variables, and included participants' tendency to answer in socially desirable ways as a statistical control in our analyses. Furthermore, the results of our confirmatory factor analyses indicated that common method bias was not a serious issue in our studies.

Also connected to the correlational assessment of our mediating and criterion variables are questions of causality. While the assumption that affective reactions precede behavioral reactions is theoretically well-founded (Van Kleef, 2009, 2014), further research might apply longitudinal methods to also methodologically capture the temporal order of followers' affective reactions preceding their behaviors. This approach would further provide the opportunity to extend the theoretical model by the dynamic relationship between leaders' and followers' emotional states. In this vein, followers' anxiety-related appeasement behavior can be expected to reduce leaders' anger, whereas followers' anger-induced deviance is likely to fuel it. Moreover, longitudinal studies could also expand our model by taking into account cognitive mechanisms that could serve as additional mediators for our observed effects (Geddes & Callister, 2007; Van Kleef, 2009, 2014). Followers' affective reactions to the described situation did not fully explain the effects of leaders' anger intensity, which suggests that it could be valuable for future research to simultaneously consider followers' affective and cognitive reactions (Van Knippenberg & Van Kleef, 2016) in reaction to leader anger displays of varying intensity. Cognitive inferences that might play a role in this regard are followers' perceptions about the leaders' likelihood for administering punishments (Schwarz Müller et al., 2017) or followers' judgment of the relational quality with their leader.

Finally, on the basis of our studies, future research needs to identify moderating variables that determine when followers react with anger or anxiety to leader anger displays of varying intensity. The Dual Threshold model suggests, for example, message characteristics such as the frequency of leader anger displays and the focus of leaders' anger accounts as moderating variables (Geddes & Callister, 2007). Thereby, the more unacceptable the message appears such as when leaders frequently express anger or when they express anger out of purely selfish reasons, the more likely followers ought to react with anger toward leaders in response. In addition, the Emotions as Social Information model (Van Kleef, 2009, 2014) suggests social-relational factors as potential moderators. When leaders only have low relative power as compared to their followers

(Lelieveld et al., 2012), leaders' anger displays ought to be seen as less acceptable and therefore cause stronger anger reactions by followers. In contrast, when leaders have high relative power compared to followers (Lelieveld et al., 2012) or are known for regularly abusing their subordinates (Tepper, 2000), leaders' anger displays might be seen as particularly threatening and thereby cause higher levels of anxiety in followers. Lastly, it seems that situational variables might also play a moderating role. For example, the temporal horizon of the leader-follower relationship could matter: Nowadays, more and more employees work in project-based structures (Lindgren, Packendorff, & Sergi, 2014), meaning that they will be assigned to a specific leader only for a limited amount of time. This could in turn reduce the threatening nature of intense leader anger displays and therefore feelings of anxiety.

Conclusion

This research introduces followers' affective reactions as explanatory mechanisms for followers' diverging reactions to high-intensity leader anger displays. Considering that followers react with reciprocal (i.e., angry) and complementary (i.e., anxious) emotions, leaders should be cautioned about displaying intense anger toward their followers. Doing so not only comes with the cost of supervisor-directed deviance provoked by followers' anger but also leads to followers' resulting work effort being triggered by their anxiety. Thus, even though followers might react to intense leader anger displays in seemingly desirable ways, their compliance is based on intimidation and may thus harm their performance and well-being in the long run.

Funding Information Preparation of this article was funded by the German Federal Ministry of Education and Research and by the European Social Fund of the European Union (FKZ 01FP1072/73, research project "Selection and Assessment of Leaders in Academia and Business").

References

- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24(3), 452–471. <https://doi.org/10.5465/AMR.1999.2202131>.
- Aquino, K., Tripp, T. M., & Bies, R. J. (2001). How employees respond to personal offense: The effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace. *Journal of Applied Psychology*, 86(1), 52–59. <https://doi.org/10.1037/0021-9010.86.1.52>.
- Aquino, K., Tripp, T. M., & Bies, R. J. (2006). Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations. *Journal of Applied Psychology*, 91(3), 653–668. <https://doi.org/10.1037/0021-9010.91.3.653>.
- Averill, J. R. (1982). *Anger and aggression: An essay on emotion*. New York, NY: Springer.

- Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, 38(11), 1145–1160. <https://doi.org/10.1037/0003-066X.38.11.1145>.
- Barrett, L. F. (1997). The relationships among momentary emotion experiences, personality descriptions, and retrospective ratings of emotion. *Personality and Social Psychology Bulletin*, 23(10), 1100–1110. <https://doi.org/10.1177/01461672972310010>.
- Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin*, 115(2), 243–267. <https://doi.org/10.1037/0033-2909.115.2.243>.
- Beal, D. J., Trougakos, J. P., Weiss, H. M., & Green, S. G. (2006). Episodic processes in emotional labor: Perceptions of affective delivery and regulation strategies. *Journal of Applied Psychology*, 91(5), 1053–1065. <https://doi.org/10.1037/0021-9010.91.5.1053>.
- Berry, C. M., Ones, D. S., & Sackett, P. R. (2007). Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis. *Journal of Applied Psychology*, 92(2), 410–424. <https://doi.org/10.1037/0021-9010.92.2.410>.
- Bies, R. J., & Tripp, T. M. (1998). Revenge in organizations: The good, the bad, and the ugly. In R. W. Griffin, A. O’Leary-Kelly, & J. M. Collins (Eds.), *Dysfunctional behavior in organizations: Non-violent dysfunctional behavior* (pp. 49–67). Stamford, CT: JAI Press.
- Borkenau, P., & Ostendorf, F. (2008). *NEO-Fünf-Faktoren Inventar (NEO-FFI) nach Costa und McCrae [NEO Five-Factor Inventory (NEO-FFI) by Costa and McCrae]*. Göttingen: Hogrefe.
- Brockner, J., Grover, S., Reed, T. F., & Dewitt, R. L. (1992). Layoffs, job insecurity, and survivors’ work effort: Evidence of an inverted-U relationship. *Academy of Management Journal*, 35(2), 413–425. <https://doi.org/10.2307/256380>.
- Brooks, A. W., & Schweitzer, M. E. (2011). Can Nervous Nelly negotiate? How anxiety causes negotiators to make low first offers, exit early, and earn less profit. *Organizational Behavior and Human Decision Processes*, 115(1), 43–54. <https://doi.org/10.1016/j.obhdp.2011.01.008>.
- Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology*, 81(4), 358–368. <https://doi.org/10.1037/0021-9010.81.4.358>.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), 230–258. <https://doi.org/10.1177/0049124192021002005>.
- Burgoon, J. K. (1993). Interpersonal expectations, expectancy violations, and emotional communication. *Journal of Language and Social Psychology*, 12(1–2), 30–48. <https://doi.org/10.1177/0261927X93121003>.
- Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, 11(2), 296–325. <https://doi.org/10.1177/1094428107300343>.
- Clark, M. S., Pataki, S. P., & Carver, V. (1996). Some thoughts and findings on self-presentation of emotions in relationships. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 247–274). Mahwah, NJ: Erlbaum.
- Clark, L. A., & Watson, D. P. (1991). General affective dispositions in physical and psychological health. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology: The health perspective* (pp. 221–245). Elmsford, NY: Pergamon Press.
- Clore, G. L., & Ortony, A. (1991). What more is there to emotion concepts than prototypes? *Journal of Personality and Social Psychology*, 60(1), 48–50. <https://doi.org/10.1037/0022-3514.60.1.48>.
- Cohen-Charash, Y., & Mueller, J. S. (2007). Does perceived unfairness exacerbate or mitigate interpersonal counterproductive work behaviors related to envy? *Journal of Applied Psychology*, 92(3), 666–680. <https://doi.org/10.1037/0021-9010.92.3.666>.
- Costa Jr., P. T., & McCrae, R. R. (1985). *The NEO Personality Inventory manual*. Odessa, FL: Psychological Assessment Resources.
- Dimberg, U., & Öhman, A. (1996). Behold the wrath: Psychophysiological responses to facial stimuli. *Motivation & Emotion*, 20(2), 149–182. <https://doi.org/10.1007/BF02253869>.
- Falbe, C. M., & Yukl, G. (1992). Consequences for managers of using single influence tactics and combinations of tactics. *Academy of Management Journal*, 35(3), 638–652. <https://doi.org/10.2307/256490>.
- Ferris, D. L., Yan, M., Lim, V., Chen, Y., & Fatimah, S. (2016). An approach/avoidance framework of workplace aggression. *Academy of Management Journal*, 59(9), 1777–1800. <https://doi.org/10.5465/amj.2014.0221>.
- Fitness, J. (2000). Anger in the workplace: An emotion script approach to anger episodes between workers and their superiors, co-workers and subordinates. *Journal of Organizational Behavior*, 21(2), 147–162. [https://doi.org/10.1002/\(SICI\)1099-1379\(200003\)21:2<147::AID-JOB35>3.0.CO;2-T](https://doi.org/10.1002/(SICI)1099-1379(200003)21:2<147::AID-JOB35>3.0.CO;2-T).
- Friedman, R., Anderson, C., Brett, J., Olekalns, M., Goates, N., & Lisco, C. C. (2004). The positive and negative effects of anger on dispute resolution: Evidence from electronically mediated disputes. *Journal of Applied Psychology*, 89(2), 369–376. <https://doi.org/10.1037/0021-9010.89.2.369>.
- Fujita, F., Diener, E., & Sandvik, E. (1991). Gender differences in negative affect and well-being: The case for emotional intensity. *Journal of Personality and Social Psychology*, 61(3), 427–434. <https://doi.org/10.1037/0022-3514.61.3.427>.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>.
- Geddes, D., & Callister, R. R. (2007). Crossing the line(s): A dual threshold model of anger in organizations. *Academy of Management Review*, 32(3), 721–746. <https://doi.org/10.5465/AMR.2007.25275495>.
- Geddes, D., & Stickney, L. T. (2011). The trouble with sanctions: Organizational responses to deviant anger displays at work. *Human Relations*, 64(2), 201–230. <https://doi.org/10.1177/0018726710375482>.
- Gibson, D. E., & Callister, R. R. (2010). Anger in organizations: Review and integration. *Journal of Management*, 36(1), 66–93. <https://doi.org/10.1177/0149206309348060>.
- Gibson, D. E., Schweitzer, M. E., Callister, R. R., & Gray, B. (2009). The influence of anger expressions on outcomes in organizations. *Negotiation and Conflict Management Research*, 2(3), 236–262. <https://doi.org/10.1111/j.1750-4716.2009.00039.x>.
- Glomb, T. M. (2002). Workplace anger and aggression: Informing conceptual models with data from specific encounters. *Journal of Occupational Health Psychology*, 7(1), 20–36. <https://doi.org/10.1037/1076-8998.7.1.20>.
- Glomb, T. M., & Hulin, C. L. (1997). Anger and gender effects in observed supervisor-subordinate dyadic interactions. *Organizational Behavior and Human Decision Processes*, 72(3), 281–307. <https://doi.org/10.1006/obhd.1997.2741>.
- Gross, J. J., Carstensen, L. L., Pasupathi, M., Tsai, J., Götestam Skorpen, C., & Hsu, A. Y. (1997). Emotion and aging: Experience, expression, and control. *Psychology and Aging*, 12(4), 590–599. <https://doi.org/10.1037/0882-7974.12.4.590>.
- Harmon-Jones, C., Bastian, B., & Harmon-Jones, E. (2016). Detecting transient emotional responses with improved self-report measures and instructions. *Emotion*, 16(7), 1086–1096. <https://doi.org/10.1037/emo0000216>.
- Haslam, C., Atkinson, S., Brown, S., & Haslam, R. (2005). Anxiety and depression in the workplace: Effects on the individual and organisation (a focus group investigation). *Journal of Affective Disorders*, 88(2), 209–215. <https://doi.org/10.1016/j.jad.2005.07.009>.

- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional contagion*. Cambridge: Cambridge University Press.
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures*, 1(1), 77–89. <https://doi.org/10.1080/19312450709336664>.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>.
- Inbar, Y., Pizarro, D. A., Gilovich, T., & Ariely, D. (2013). Moral masochism: On the connection between guilt and self-punishment. *Emotion*, 13(1), 14–18. <https://doi.org/10.1037/a0029749>.
- Izard, C. E., Dougherty, F. E., Bloxom, B. M., & Kotsch, W. E. (1974). *The differential emotions scale: A method of measuring the subjective experience of discrete emotions*. Nashville, TN: Unpublished manuscript.
- Johnson, G., & Connelly, S. (2014). Negative emotions in informal feedback: The benefits of disappointment and drawbacks of anger. *Human Relations*, 67(10), 1265–1290. <https://doi.org/10.1177/0018726714532856>.
- Jordan, P. J., & Lawrence, S. A. (2009). Emotional intelligence in teams: Development and initial validation of the short version of the Workgroup Emotional Intelligence Profile (WEIP-S). *Journal of Management & Organization*, 15(4), 452–469. <https://doi.org/10.1017/S1833367200002546>.
- Kacmar, K. M., Zivnuska, S., & White, C. D. (2007). Control and exchange: The impact of work environment on the work effort of low relationship quality employees. *The Leadership Quarterly*, 18(1), 69–84. <https://doi.org/10.1016/j.leaqua.2006.11.002>.
- Keltner, D., & Buswell, B. N. (1997). Embarrassment: Its distinct form and appeasement functions. *Psychological Bulletin*, 122(3), 250–270. <https://doi.org/10.1037/0033-2909.122.3.250>.
- Keltner, D., & Kring, A. M. (1998). Emotion, social function, and psychopathology. *Review of General Psychology*, 2(3), 320–342. <https://doi.org/10.1037/1089-2680.2.3.320>.
- Keltner, D., Young, R. C., & Buswell, B. N. (1997). Appeasement in human emotion, social practice, and personality. *Aggressive Behavior*, 23(5), 359–374. [https://doi.org/10.1002/\(SICI\)1098-2337\(1997\)23:5<359::AID-AB5>3.0.CO;2-D](https://doi.org/10.1002/(SICI)1098-2337(1997)23:5<359::AID-AB5>3.0.CO;2-D).
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York: Guilford.
- Koning, L. F., & Van Kleef, G. A. (2015). How leaders' emotional displays shape followers' organizational citizenship behavior. *The Leadership Quarterly*, 26(4), 489–501. <https://doi.org/10.1016/j.leaqua.2015.03.001>.
- Lelieveld, G.-J., Van Dijk, E., Van Beest, I., & Van Kleef, G. A. (2012). Why anger and disappointment affect other's bargaining behavior differently: The moderating role of power and the mediating role of reciprocal and complementary emotions. *Personality and Social Psychology Bulletin*, 38(9), 1209–1221. <https://doi.org/10.1177/0146167212446938>.
- Levine, L. J., Prohaska, V., Burgess, S. L., Rice, J. A., & Lauthere, T. M. (2001). Remembering past emotions: The role of current appraisals. *Cognition & Emotion*, 15(4), 393–417. <https://doi.org/10.1080/02699930125955>.
- Lewis, K. M. (2000). When leaders display emotion: How followers respond to negative emotional expression of male and female leaders. *Journal of Organizational Behavior*, 21(2), 221–234. [https://doi.org/10.1002/\(SICI\)1099-1379\(200003\)21:2<221::AID-JOB36>3.0.CO;2-0](https://doi.org/10.1002/(SICI)1099-1379(200003)21:2<221::AID-JOB36>3.0.CO;2-0).
- Lindebaum, D., & Fielden, S. (2011). 'It's good to be angry': Enacting anger in construction project management to achieve perceived leader effectiveness. *Human Relations*, 64(3), 437–458. <https://doi.org/10.1177/0018726710381149>.
- Lindebaum, D., Jordan, P. J., & Morris, L. (2016). Symmetrical and asymmetrical outcomes of leader anger expression: A qualitative study of army personnel. *Human Relations*, 69(2), 277–300. <https://doi.org/10.1177/0018726715593350>.
- Lindgren, M., Packendorff, J., & Sergi, V. (2014). Thrilled by the discourse, suffering through the experience: Emotions in project-based work. *Human Relations*, 67(4), 1293–1320. <https://doi.org/10.1177/0018726713520022>.
- Miron-Spektor, E., & Rafaeli, A. (2009). The effects of anger in the workplace: When, where, and why observing anger enhances or hinders performance. *Research in Personnel and Human Resources Management*, 28, 153–178. [https://doi.org/10.1108/S0742-7301\(2009\)0000028007](https://doi.org/10.1108/S0742-7301(2009)0000028007).
- Mitchell, M. S., & Ambrose, M. L. (2007). Abusive supervision and workplace deviance and the moderating effects of negative reciprocity beliefs. *Journal of Applied Psychology*, 92(4), 1159–1168. <https://doi.org/10.1037/0021-9010.92.4.1159>.
- Morris, M. W., & Keltner, D. (2000). How emotions work: The social functions of emotional expression in negotiations. *Research in Organizational Behavior*, 22(1), 1–50. [https://doi.org/10.1016/S0191-3085\(00\)22002-9](https://doi.org/10.1016/S0191-3085(00)22002-9).
- Nelissen, R. M., & Zeelenberg, M. (2009). When guilt evokes self-punishment: Evidence for the existence of a Dobby Effect. *Emotion*, 9(1), 118–122. <https://doi.org/10.1037/a0014540>.
- Parrott, W. G. (1993). Beyond hedonism: Motives for inhibiting good moods and for maintaining bad moods. In D. Wegner & J. W. Pennebaker (Eds.), *Handbook of mental control* (pp. 278–305). Prentice Hall, NJ: Englewood Cliffs.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes: Measures of social psychological attitudes* (Vol. 1, pp. 17–59). San Diego, CA: Academic Press.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731. <https://doi.org/10.3758/BF03206553>.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>.
- Sakurai, K., & Jex, S. M. (2012). Coworker incivility and incivility targets' work effort and counterproductive work behaviors: The moderating role of supervisor social support. *Journal of Occupational Health Psychology*, 17(2), 150–161. <https://doi.org/10.1037/a0027350>.
- Schachter, S. (1959). *The psychology of affiliation: Experimental studies of the sources of gregariousness*. Stanford, CA: Stanford University Press.
- Schwarz Müller, T., Brosi, P., Spörlle, M., & Welpel, I. M. (2017). It's the base: Why displaying anger instead of sadness might increase leaders' perceived power but worsen their leadership outcomes. *Journal of Business and Psychology*, 32(6), 691–709. <https://doi.org/10.1007/s10869-016-9467-4>.

- Seo, M. G., Bartunek, J. M., & Barrett, L. F. (2010). The role of affective experience in work motivation: Test of a conceptual model. *Journal of Organizational Behavior, 31*(7), 951–968. <https://doi.org/10.1002/job.655>.
- Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology, 52*(6), 1061–1086. <https://doi.org/10.1037/0022-3514.52.6.1061>.
- Shields, S. A. (2005). The politics of emotion in everyday life: “Appropriate” emotion and claims on identity. *Review of General Psychology, 9*(1), 3–15. <https://doi.org/10.1037/1089-2680.9.1.3>.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and non-experimental studies: New procedures and recommendations. *Psychological Methods, 7*(4), 422–445. <https://doi.org/10.1037/1082-989X.7.4.422>.
- Simon, L. S., Hurst, C., Kelley, K., & Judge, T. A. (2015). Understanding cycles of abuse: A multimotive approach. *Journal of Applied Psychology, 100*(6), 1798–1810. <https://doi.org/10.1037/apl0000031>.
- Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology, 82*(3), 434–443. <https://doi.org/10.1037/0021-9010.82.3.434>.
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology, 48*(4), 813–838. <https://doi.org/10.1037//0022-3514.48.4.813>.
- Solomon, R. C. (1983). *The passions: The myth and nature of human emotion*. Notre Dame, IN: University of Notre Dame Press.
- Spielberger, C. D., Reheiser, E. C., & Sydeman, S. J. (1995). Measuring the experience, expression, and control of anger. *Issues in Comprehensive Pediatric Nursing, 18*(3), 207–232. <https://doi.org/10.3109/014608695090872>.
- Stickney, L. T., & Geddes, D. (2016). More than just “Blowing off Steam”: The roles of anger and advocacy in promoting positive outcomes at work. *Negotiation and Conflict Management Research, 9*(2), 141–157. <https://doi.org/10.1111/ncmr.12071>.
- Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70*(6), 1256–1269. <https://doi.org/10.1037/0022-3514.70.6.1256>.
- Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal, 43*(2), 178–190. <https://doi.org/10.2307/1556375>.
- Tepper, B. J., Moss, S. E., Lockhart, D. E., & Carr, J. C. (2007). Abusive supervision, upward maintenance communication, and subordinates’ psychological distress. *Academy of Management Journal, 50*(5), 1169–1180. <https://doi.org/10.2307/20159918>.
- Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of Occupational Health Psychology, 5*(2), 219–230. <https://doi.org/10.1037/1076-8998.5.2.219>.
- Van Kleef, G. A. (2009). How emotions regulate social life: The emotions as social information (EASI) model. *Current Directions in Psychological Science, 18*(3), 184–188. <https://doi.org/10.1111/j.1467-8721.2009.01633.x>.
- Van Kleef, G. A. (2014). Understanding the positive and negative effects of emotional expressions in organizations: EASI does it. *Human Relations, 67*(9), 1145–1164. <https://doi.org/10.1177/0018726713510329>.
- Van Kleef, G. A., & Côté, S. (2007). Expressing anger in conflict: When it helps and when it hurts. *Journal of Applied Psychology, 92*(6), 1557–1569. <https://doi.org/10.1037/0021-9010.92.6.1557>.
- Van Kleef, G. A., Homan, A. C., Beersma, B., & van Knippenberg, D. (2010). On angry leaders and agreeable followers: How leaders’ emotions and followers’ personalities shape motivation and team performance. *Psychological Science, 21*(12), 1827–1834. <https://doi.org/10.1177/0956797610387438>.
- Van Kleef, G. A., Homan, A. C., Beersma, B., Van Knippenberg, D., Van Knippenberg, B., & Damen, F. (2009). Searing sentiment or cold calculation? The effects of leader emotional displays on team performance depend on follower epistemic motivation. *Academy of Management Journal, 52*(3), 562–580. <https://doi.org/10.5465/AMJ.2009.41331253>.
- Van Kleef, G. A., Homan, A. C., & Cheshin, A. (2012). Emotional influence at work: Take it EASI. *Organizational Psychology Review, 2*(4), 311–339. <https://doi.org/10.1177/2041386612454911>.
- Van Knippenberg, D., & Van Kleef, G. A. (2016). Leadership and affect: Moving the hearts and minds of followers. *The Academy of Management Annals, 10*(1), 799–840. <https://doi.org/10.1080/19416520.2016.1160515>.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin, 96*(3), 465–490. <https://doi.org/10.1037/0033-2909.96.3.465>.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063–1070. <https://doi.org/10.1037//0022-3514.54.6.1063>.
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology, 98*(2), 222–244. <https://doi.org/10.1037/a0016984>.
- Wood, R. E., Goodman, J. S., Beckmann, N., & Cook, A. (2008). Mediation testing in management research a review and proposals. *Organizational Research Methods, 11*(2), 270–295. <https://doi.org/10.1177/1094428106297811>.
- Yukl, G. (2012). Effective leadership behavior: What we know and what questions need more attention. *The Academy of Management Perspectives, 26*(4), 66–85. <https://doi.org/10.5465/amp.2012.0088>.
- Zheng, X., Van Dijke, M., Leunissen, J. M., Giurge, L. M., & De Cremer, D. (2016). When saying sorry may not help: Transgressor power moderates the effect of an apology on forgiveness in the workplace. *Human Relations, 69*(6), 1387–1418. <https://doi.org/10.1177/0018726715611236>.