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On Angry Leaders and Agreeable Followers: How Leaders' Emotions and Followers' Personalities Shape Motivation and Team Performance

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Abstract

Do followers perform better when their leader expresses anger or when their leader expresses happiness? We propose that this depends on the follower's level of agreeableness. Anger is associated with hostility and conflict—states that are at odds with agreeable individuals' goals. Happiness facilitates affiliation and positive relations—states that are in line with agreeable individuals' goals. Accordingly, the two studies we conducted showed that agreeableness moderates the effects of a leader's emotional displays. In a scenario study, participants with lower levels of agreeableness responded more favorably to an angry leader, whereas participants with higher levels of agreeableness responded more favorably to a neutral leader. In an experiment involving four-person teams, teams composed of participants with lower average levels of agreeableness performed better when their leader expressed anger, whereas teams composed of participants with higher average levels of agreeableness performed better when their leader expressed happiness. Team performance was mediated by experienced workload, which was highest among agreeable followers with an angry leader. Besides having important practical implications, the findings shed new light on the fundamental question of how emotional expressions regulate social behavior.

Keywords

emotion, social effects, leadership, anger, happiness, agreeableness

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Emotional expressions play an important role in regulating social behavior (Keltner & Haidt, 1999; Van Kleef, 2009). This is especially true of emotional expressions made by people in power (Keltner, Van Kleef, Chen, & Kraus, 2008). How can people in power, such as leaders, use their emotions to influence followers? Anecdotal evidence suggests that leaders can choose between two approaches. Some leaders use expressions of anger to intimidate followers and motivate them to perform-think of television chef Gordon Ramsay (in the reality show Hell's Kitchen). Other leaders favor a positive approach, expressing joy and enthusiasm to motivate followers and boost performance-think of U.S. President Barack Obama. It is unclear which of these types of emotional expression more effectively motivates people. Do people work better when their leader expresses anger or when their leader expresses happiness? Drawing on theories of emotion and leadership effectiveness, we developed and tested hypotheses about the role of followers' personalities in determining the social consequences of leaders' emotional expressions.

Several studies have compared the two emotional strategies of expressing anger or expressing happiness but have produced inconsistent findings. Some studies suggest that expressing anger can be beneficial. Followers may infer from a leader's anger that their performance was suboptimal (Fitness, 2000), and this may stimulate effort (Sy, Côté, & Saavedra, 2005) and increase performance (Van Kleef et al., 2009). Other studies have found that positive emotional displays have beneficial effects. Leaders' expressions of happiness increased followers' ratings of the leaders' effectiveness (Gaddis, Connelly, & Mumford, 2004), perceived charisma of the leaders (Bono & Ilies, 2006), positive emotions and liking of the leaders (Sy et al., 2005; Van Kleef et al., 2009), and in some cases team performance (George, 1995; Sy et al., 2005; Van Kleef et al.,

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Gerben A.Van Kleef, University of Amsterdam, Department of Social Psychology, Roetersstraat 15, 1018 WB Amsterdam, The Netherlands E-mail: g.a.vankleef@uva.nl 2009). Conversely, displays of negative emotions such as anger were associated with poor evaluations of a leader's effectiveness (Glomb & Hulin, 1997; Lewis, 2000). In short, some studies suggest that leaders' expressions of anger are beneficial to followers' performance, whereas other studies suggest that expressions of happiness are more effective.

We drew on classic work on leadership effectiveness and recent theorizing on the social functions of emotions to develop the argument that the effects of anger displays and happiness displays depend on followers' personalities-in particular, their levels of agreeableness. Classic contingency approaches to leadership hold that leadership effectiveness is an interactive function of leadership style and the socialorganizational context (e.g., Fiedler, 1964). This implies that followers may respond differently to the same leadership behaviors depending on the followers' personal traits. For instance, Shamir, House, and Arthur (1993) theorized that perceptions of leader charisma hinge on the match between leaders' behavior and followers' values. Furthermore, Ehrhart and Klein (2001) showed that followers respond more favorably to leaders with whom they feel they share similar values and social goals.

A similar fit argument derives from the theory of emotions as social information (EASI; Van Kleef, 2009; Van Kleef, De Dreu, & Manstead, 2010), which posits that the interpersonal effects of emotional expressions depend on, among other things, the expectations and desires of the target. For instance, individuals differ in their desire for harmonious relationships. According to EASI theory, a leader's expressions of anger should be acceptable and effective when observers have a weak desire for social harmony (indicating a relative fit between the leader's emotional expression and the targets' expectations). However, expressions of anger should be unwelcome and counterproductive when observers have a strong desire for social harmony (indicating a lack of fit between the leader's expression and the followers' expectations).

Integrating these perspectives, we propose that the effectiveness of leaders' expressions of anger depends on followers' preferences for social harmony. Such preferences have a stable basis in the Big Five factor of agreeableness (McCrae & Costa, 1987). Individuals with higher levels of agreeableness tend to be more courteous to other people, to prefer cooperation over competition, and to be thoughtful and considerate. Because they value harmony, they also expect other people to treat them with courtesy (Graziano, Jensen-Campbell, & Hair, 1996). Individuals with lower levels of agreeableness more often get into arguments, are skeptical of other peoples' intentions, and do not shy away from conflict. Being more cynical and less preoccupied with maintaining social harmony, they also expect less courtesy from other people and are less sensitive to inconsiderate behavior (Graziano et al., 1996).

The primary focus of our study was on anger, which is especially interesting in relation to agreeableness and associated preferences for social harmony. Anger is associated with interpersonal distance, hostility, and conflict (Clark, Pataki, & Carver, 1996; Smith, Haynes, Lazarus, & Pope, 1993; Van Kleef, De Dreu, & Manstead, 2004), states that are at odds with a preference for harmony. We contrasted anger with no emotion (in our preliminary study) and with happiness (in our main study). Happiness facilitates affiliation, trust, and social connectedness (Clark & Taraban, 1991; Smith et al., 1993), and therefore is compatible with agreeable individuals' preference for harmonious relations. We propose that a leader's expressions of anger (compared with expressions of no emotion or of happiness) can be beneficial or counterproductive depending on their fit with followers' levels of agreeableness.

Agreeable individuals value constructive interpersonal behaviors rather than power-asserting strategies (Graziano et al., 1996), of which anger is a prime example (Tiedens, 2001). Because expressions of anger are at odds with agreeable individuals' preference for social harmony (McCrae & Costa, 1987), for them the confrontation with an angry leader should be particularly demanding and stressful (Suls, Martin, & David, 1998). As cognitive resources are depleted by the taxing situation (Hockey, 1997; McEwen & Sapolsky, 1995), experienced workload (i.e., the perceived amount and difficulty of the work) may increase, rendering individuals less able to process information and make good decisions (Steinhauser, Maier, & Hübner, 2007). This may undermine motivation and performance. Individuals with lower levels of agreeableness should be more tolerant of anger because they are less concerned with protecting social harmony (McCrae & Costa, 1987). As a result, they should be less distracted by stressful conflict (Suls et al., 1998), experience the task as less taxing, and be more likely to benefit from the motivating qualities of expressed anger established in previous work (Sy et al., 2005; Van Kleef et al., 2009).

Preliminary Study

As a first test of our model, we examined the interactive effects of a leader's displays of anger and a follower's level of agreeableness on the follower's judgments of leadership quality and on the follower's motivation, a proxy of performance. A total of 112 students (66 female and 46 male; age range = 18–55 years, M = 22.21 years, SD = 5.43) participated for course credit. The measure of agreeableness was administered at the start of the experimental session (using the same scale as in the main study), followed by several unrelated questionnaires.

Participants read a scenario about an advertising company and were asked to imagine themselves as part of the company's team. In the scenario, a team leader provided feedback on the team's performance. In the angry-leader condition, participants read that their leader gave the feedback "in an angry way," and they saw a picture of the leader's angry face. In the neutral-leader condition, participants read that the leader delivered the feedback "in a neutral way," and they saw a picture of the leader with a neutral expression (see Fig. 1). Pictures were taken from the Karolinska Directed Emotional

Angry Leader

Neutral Leader



KDEF/AM34ANHR

KDEF/AM34NEHR

Fig. 1. Pictures used in the preliminary study. Participants saw a picture of a leader making either an angry expression or a neutral expression. The codes below the pictures refer to the Karolinska Directed Emotional Faces database (Lundqvist, Flykt, & Öhman, 1998), from which these pictures were taken.

Faces database (Lundqvist, Flykt, & Ohman, 1998), which has been extensively pretested and used in previous research, including work on the social effects of emotions (Pietroni, Van Kleef, De Dreu, & Pagliaro, 2008).

We measured participants' motivation with 10 items (e.g., "This leader motivates me to perform well," "This leader brings out the best in me," "I would like to work under this leader," and "I will put in extra effort for this leader"; $\alpha = .94$), and we measured judgments of leadership quality with 5 items (e.g., "This person has good leadership qualities," "This is an effective leader," and "This leader knows how to get things done"; $\alpha = .90$). Both criteria were measured on a scale ranging from 1, *strongly disagree*, to 5, *strongly agree*.

Regression analysis revealed the predicted Leader Emotion × Follower Agreeableness interaction for both motivation, $\beta = -0.23$, t(109) = -2.85, p < .01, and ratings of leadership quality, $\beta = -0.29$, t(109) = -3.59, p < .001 (see Fig. 2). Individuals with lower levels of agreeableness reported higher motivation and leadership quality when confronted with an angry leader rather than with a nonemotional leader, whereas individuals with higher levels of agreeableness showed the reverse pattern.

In the main study, we aimed to replicate these findings in a team task with an objective performance outcome. Furthermore, we compared anger with happiness to rule out the possibility that the effects we found in the preliminary study were due simply to the fact that any emotion was expressed. In addition, we used angry and happy emotions to create a comparison condition that involved similar levels of activation (cf. Barsade, 2002). Finally, we explored whether the interactive effects of leader emotion and follower agreeableness on team performance can be explained by experienced workload, which should be highest among agreeable individuals with an angry leader.

Method

Participants and design

A total of 144 students (84 female and 60 male; age range = 18–42 years, M = 21.15 years, SD = 3.29) participated for course credit or ϵ 20. They were assigned randomly to 36 fourperson teams, which were assigned randomly to the angryleader or the happy-leader condition (18 teams each).



Fig. 2. Participants' motivation (left panel) and judgments of leadership quality (right panel) in the preliminary study, as a function of leader's emotion (angry or neutral) and participant's agreeableness (I SD above the mean or I SD below the mean).

Procedure

Assessment of agreeableness. Participants completed the 12-item Agreeableness subscale of the Revised Neuroticism-Extroversion-Openness (NEO) Personality Inventory-Short Form (Costa & McCrae, 1992). Examples of items are "I try to be courteous to everyone I meet," "I often get into arguments with my family and co-workers" (reverse-coded), and "I generally try to be thoughtful and considerate" ($1 = strongly \ disagree$, $5 = strongly \ agree$). The scale's reliability (α) in the current sample was .70.

Cover story. Participants were told that the purpose of the study was to compare the effects of leadership through modern communication technologies with the effects of leadership through traditional live interaction. All participants were told that they were in the e-leadership condition, which meant that their leader (in reality, a trained actor) would observe and coach them from another room via cameras and a computer network (see Van Kleef et al., 2009). The experimenter explained that the leader had a master's degree in management and was enrolled in a postdoctoral program on leadership. The leader would supervise the teams as part of this program to gain more experience with e-leadership. It was emphasized that the leader had extensive experience with the task. The experimenter then pointed to the camera through which the leader allegedly would observe the teams during the task.

Team members then entered a room adjacent to where they would perform the task and sat together in front of a large computer monitor. Specially designed software made it appear as though a live stream of the leader was shown, but in reality the leader's message had been prerecorded. The experimenter pushed a button on the computer, and a text box on the screen said "connection being established." The leader appeared on the screen and briefly introduced himself, repeating some of the information the experimenter had given earlier. Then he wished the team good luck with the task and announced that he would comment on their performance later. Because the camera through which the leader allegedly monitored their behavior hung in the room where the team would work on the task, participants did not expect to interact with the leader while watching him on the monitor. All teams viewed the same introductory video of their leader, in which he displayed no emotions.

The task. We used a dynamic computer simulation of a military command-and-control situation in which team members work together to protect a restricted airspace from enemy intruders (Michigan State University Distributed Dynamic Decision-Making, MSU-DDD, task; e.g., Beersma et al., 2003; Homan et al., 2008). The task consists of detecting, identifying, and disabling enemy targets while not disabling friendly forces. Each member controlled four different types of vehicles that could be used to defend the area (for details, see Beersma et al., 2003). Before engaging in the task, teams received extensive training. The first 60 min of training familiarized teams with the technical and practical aspects of the simulation (e.g., moving vehicles around the area, identifying and disabling targets). The final part of the training consisted of a 15-min practice trial.

Manipulation of leader's emotional display. After the practice trial, team members were again seated together in front of the screen in the adjacent room. The experimenter pretended to establish a connection with the leader's computer, and shortly thereafter the leader reappeared on the screen. He identified a number of aspects of the team's performance that could be improved. The leader's comments were chosen to be nonspecific, so that they would be valid in all situations and for all teams irrespective of their performance. (Note also that because of the task's complexity, it was impossible for these inexperienced teams to judge the quality of their performance.) For instance, the leader spoke about the importance of working fast, communicating efficiently, and engaging targets accurately-aspects of the task that can always be improved. The leader spoke exactly the same text in both emotion conditions, expressing either happiness or anger by means of facial expressions, vocal intonation, and bodily postures. In the happy-leader condition, the leader looked cheerful, spoke with an enthusiastic, upbeat tone of voice, and smiled frequently. In the angry-leader condition, he frowned a lot, spoke with an angry and irritable tone of voice, clenched his fists, and looked stern (for similar procedures, see Barsade, 2002; Bono & Ilies, 2006; Lewis, 2000; Van Kleef et al., 2009).

Assessment of team performance. Next, teams worked on the task for 30 min. Each team started the simulation with 50,000 points. They lost 1 point for each second that any unfriendly target was in the "restricted zone," and 2 points for each second that an unfriendly target was in the "highly restricted zone" (see Beersma et al., 2003). Teams also lost 25 points for disabling a friendly force or disabling any forces outside the restricted zone. Teams gained 5 points for each successful attack. Reflecting the interdependent nature of the task, the software recorded the performance of the team as a whole (not the performance of individual members), and this was our central dependent variable. Team performance scores in our study ranged from 24,446 to 47,616 points.¹

Posttask questionnaire. Participants completed a measure of experienced workload and manipulation checks. They indicated their agreement with each questionnaire item on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*).

Experienced workload was measured with four items: "During the task I had to pay attention to too many things," "I often had too little to do during the task" (reverse-coded), "While working on the task I often received assignments that were too difficult or complicated," and "During the task I had to make too many decisions" ($\alpha = .70$).

Perceptions of the leader's anger were measured by four items (e.g., "The leader appeared angry after the training session"; $\alpha = .97$). Perceptions of the leader's happiness were also measured by four items (e.g., "The leader appeared happy after the training session"; $\alpha = .94$).

Analyses

Our dependent variable, team performance, was defined and operationalized at the group level. When individual characteristics are used as predictors of group-level outcomes, the individual characteristics must be aggregated. Such data cannot be analyzed with current multilevel techniques (Croon & Van Veldhoven, 2007); these techniques can be used to predict lowerlevel outcomes from lower- or higher-level predictors, but not to predict higher-level outcomes. In the latter case, aggregation of individual-level predictors to the group level is the only possible strategy to analyze the data (Kashy & Kenny, 2000).

The appropriate aggregation of personality variables depends on the type of task (Barrick, Stewart, Neubert, & Mount, 1998; Steiner, 1972). Steiner distinguished among disjunctive, conjunctive, and additive tasks. Of these three categories, the additive model best represents the present task, because each team member had an equal level of responsibility and an equal share of input into the team's output. Note that this situation is fundamentally different from either a disjunctive task (e.g., solving a difficult math problem), in which the team's best member determines the team's performance, or a conjunctive task (e.g., mountain climbing), in which the weakest-performing member determines the team's performance. Given the additive nature of the task, we used the average of all team member's individual scores to represent agreeableness at the team level (Barrick et al., 1998; see also Homan et al., 2008, and Van Kleef et al., 2009, for similar aggregation procedures used in the same task).

Experienced workload and the manipulation checks were also aggregated to the team level. Because participants were exposed to the leader's emotional displays as a team, aggregation of these measures was based on a direct-consensus model (in which some degree of consensus among team members is required to justify aggregation to the team level; Chan, 1998). To examine whether aggregation was appropriate, we first calculated intraclass correlation (1), ICC(1), coefficients (i.e., indices of interrater agreement). ICC(1) values were all significant—experienced workload: ICC(1) = .12, F(35, 108) =1.54, p < .05; perceived anger: ICC(1) = .76, F(35, 108) =13.36, p < .001; and perceived happiness: ICC(1) = .68, F(35, 108) = 9.67, p < .001. Further support for aggregation was provided by within-group agreement $(r_{w\sigma})$ coefficients. The average within-group agreement values for experienced workload, perceived anger, and perceived happiness were .89, .73, and .76, respectively, representing satisfactory agreement. Together, these data justify aggregation of the individual-level measures to the team level.

The hypotheses were tested using hierarchical linear regression. Agreeableness was treated as a continuous variable. The leader's emotional display was dummy-coded (0 for anger and 1 for happiness), and the interaction between leader emotional display and agreeableness was computed based on centered variables (Aiken & West, 1991). We included the standard deviation of team-level agreeableness to account for differences between individual team members (Klein & Kozlowski, 2000; also see Homan et al., 2008; Van Kleef et al., 2009).

Results

Manipulation check

Regression analysis revealed that teams in the angry-leader condition perceived the leader as more angry than did teams in the happy-leader condition, $\beta = -0.95$, t(32) = -16.58, p <.001; teams in the happy-leader condition perceived the leader as happier than did teams in the angry-leader condition, $\beta =$ 0.96, t(32) = 18.37, p < .001. Paired-sample t tests further revealed that teams in the angry-leader condition rated the leader as more angry than happy (M = 3.88 and M = 1.77, respectively), t(17) = 10.80, p < .001, and teams in the happyleader condition rated the leader as more happy than angry (M = 3.82 and M = 1.37, respectively), t(17) = 27.20, p < .001.There were no main effects of agreeableness-perceived anger: $\beta = 0.01$, t(32) = 0.14, n.s.; perceived happiness: $\beta =$ 0.05, t(32) = 0.27, n.s. There were also no interactions between emotion and agreeableness—perceived anger: $\beta = 0.02$, t(32) =0.30, n.s.; perceived happiness: $\beta = -0.01$, t(32) = -0.27, n.s.

Team performance

Regression analyses are presented in Table 1. There were no main effects of leader emotion or team agreeableness. However, as

Table 1. Hierarchical Regression Analyses

Step and predictor	Experienced workload	Team performance
Step 1: control		
Team agreeableness SD	0.11	-0.13
R ²	0.01	0.02
Step 2: main effects		
Team agreeableness SD	0.25	-0.20
Leader's emotional display	0.01	-0.05
Team agreeableness	0.47***	-0.17
R^2	0.21*	0.05
Step 3: interaction		
Team agreeableness SD	0.16	-0.11
Leader's emotional display	-0.08	0.04
Team agreeableness	0.52**	-0.22
Leader's Emotional Display × Team Agreeableness	-0.39*	0.37*
R^2	0.35*	0.21*

Note: N = 36 groups. Standardized regression coefficients (β) are reported. Leader's emotional display was dummy-coded 0 for anger and 1 for happiness. *p < .05. **p < .01. predicted, we found a significant Leader Emotion × Team Agreeableness interaction (see Fig. 3). Further probing of the interaction (Aiken & West, 1991) revealed that teams with lower levels of agreeableness performed better when the leader expressed anger rather than happiness, $\beta = -0.55$, t(31) = -2.04, p < .05. In contrast, teams with higher levels of agreeableness performed better when the leader expressed happiness rather than anger, $\beta = 0.66$, t(31) = 2.04, p < .05.

Experienced workload

Regression analysis revealed no main effect of leader emotion on experienced workload (see Table 1). We did find a main effect of agreeableness (teams with higher levels of agreeableness experienced higher workload than did teams with lower levels of agreeableness), which was qualified by the predicted Leader Emotion × Team Agreeableness interaction (see Fig. 4). Probing of the effect revealed that teams with lower levels of agreeableness did not experience differential workload as a function of their leader's emotional displays, $\beta = 0.28$, t(31) =1.46, n.s. However, teams with higher levels of agreeableness experienced a higher workload when their leader expressed anger rather than happiness, $\beta = -0.52$, t(31) = -2.32, p < .03.

Mediation analysis

We conducted mediated regression analyses to test whether the workload experienced by agreeable followers with an angry leader can account for followers' impaired performance. We already demonstrated that the interaction between leader emotion and agreeableness predicted team performance (Step 1) and experienced workload (Step 2). Simultaneously



Fig. 3. Team performance as a function of the leader's emotion (angry or happy) and the team's agreeableness (1 SD above the mean or 1 SD below the mean) in the main study.



Fig. 4. Participants' experienced workload as a function of the leader's emotion (angry or happy) and the team's agreeableness (I SD above the mean or I SD below the mean) in the main study.

entering the predictors (emotion, agreeableness, and their interaction) and the proposed mediator (workload) into the equation (Step 3) yielded a significant effect of workload on performance, $\beta = -0.39$, t(30) = -2.07, p < .05, and reduced the formerly significant Leader Emotion × Team Agreeableness interaction to nonsignificance, $\beta = 0.23$, t(30) = 1.28, n.s. A Sobel test indicated that the indirect effect was significant (z = 1.65, p < .05, one-tailed).²

Discussion

We demonstrated that the effects of a leader's emotional displays on followers' performance depend on the followers' agreeableness. Followers with lower levels of agreeableness were more motivated and performed better when their leader expressed anger rather than no emotion or happiness, whereas followers with higher levels of agreeableness performed worse when their leader expressed anger rather than no emotion or happiness. Performance was mediated by experienced workload, which was greatest among followers with higher levels of agreeableness and an angry leader. These findings bridge classic work on the contingencies of effective leadership (e.g., Fiedler, 1964) with contemporary research on the social functions of emotions (e.g., Keltner & Haidt, 1999; Van Kleef, 2009) and the effectiveness of leaders' emotional displays (e.g., Bono & Ilies, 2006; George, 1995; Lewis, 2000; Sy et al., 2005; Van Kleef et al., 2009).

Past research on the consequences of emotional displays have yielded inconsistent findings, with some studies pointing to the beneficial effects of positive displays (e.g., Bono & Ilies, 2006; George, 1995), and other studies suggesting that negative displays are more effective (e.g., Tiedens, 2001; Van Kleef et al., 2004). These disparate findings can be better understood by considering the match or the mismatch between leader emotion and follower personality. Future research could investigate whether other personality characteristics, individual differences in values and belief systems, or cultural differences also shape the interpersonal effects of emotional expressions.

The conclusion that the consequences of emotional expressions depend on the target's personality has important implications for theorizing about the social functions of emotions. Although recent theories have suggested a possible role for personality (e.g., Van Kleef, 2009), to our knowledge, the present study is the first to demonstrate that the social consequences of leaders' emotional displays are indeed contingent on the targets' personalities-a finding that sheds new light on the boundary conditions of emotional functionality. This conclusion may generalize to other domains, such as intimate relationships, parenting, conflict management, sports, and social influence. For instance, successful relationships may be those in which partners' emotional tendencies and personalities are aligned, and individuals who tailor their emotional expressions to a target's expectations and desires may enhance their persuasiveness and influence.

These notions have clear practical implications. Leaders must match their emotional expressions to their followers' personality to maximize performance. When dealing with agreeable subordinates, managers should refrain from expressing anger, for such expressions would be unlikely to result in desired outcomes. In such situations, leaders are better advised to show no emotion or to display positive emotions to generate a constructive and harmonious atmosphere. When followers are less concerned with maintaining social harmony, however, expressing anger may promote performance.

Our findings suggest that leaders who are capable of accurately diagnosing their subordinates' personality, and of regulating their emotions accordingly, will be more successful in managing group processes and stimulating performance than leaders who do not accurately diagnose their subordinates' personality. When selecting leaders, managers should consider characteristics and abilities, such as emotional intelligence, that are predictive of such qualities (Mayer, Salovey, & Caruso, 2004). Training programs and leadership courses should therefore devote attention to teaching prospective leaders socioemotional skills to increase their effectiveness.

Our conclusions may be limited by our experimental task, which was relatively complex and demanding. As a result, agreeable followers may have suffered more from the workload they experienced as a result of the leader's anger than they would have in a simpler task. Future work could explore whether our findings generalize to simpler tasks. Awaiting future research, we conclude that a leader's emotional expressions may have different social consequences depending on the personality of the target—a conclusion that adds a new chapter to theorizing about the social functions of emotions.

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Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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Notes

1. If we assume that all members made equal contributions to the team's performance, we can simulate individual-level analyses by assigning 25% of the team performance score to each team member. We used this approach to conduct analyses at the individual level, while controlling for group membership to account for nonindependence. This analysis produced significant interactive effects of leader emotion and follower agreeableness on estimates of individual performance, $\beta = -0.16$, t(139) = -2.08, p < .04, and experienced workload, $\beta = 0.20$, t(139) = 2.45, p < .02. Experienced workload significantly predicted individual performance, $\beta = -0.19$, t(138) =-2.35, p < .02, and mediated the interactive effect of leader emotion and follower agreeableness on performance, z = 1.70, p < .05. Although these analyses lend additional credence to our team-level results, they rest on the untested assumption that all team members contributed equally to the team's performance, and therefore we must interpret the results with care.

2. The reverse mediational path was nonsignificant (z = 1.43, p = .15).

References

- Aiken, L.S., & West, S.G. (1991). Multiple regression: Testing and interpreting interactions. Thousand Oaks, CA: Sage.
- Barrick, M.R., Stewart, G.L., Neubert, M.J., & Mount, G.L. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, 83, 377–391.
- Barsade, S.G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47, 644–675.
- Beersma, B., Hollenbeck, J.R., Humphrey, S.E., Moon, H., Conlon, D.E., & Ilgen, D.R. (2003). Cooperation, competition, and team performance: Towards a contingency approach. *Academy of Management Journal*, 46, 572–590.
- Bono, J.E., & Ilies, R. (2006). Charisma, positive emotions, and mood contagion. *The Leadership Quarterly*, 17, 317–334.
- Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83, 234–246.
- Clark, M.S., Pataki, S.P., & Carver, V.H. (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, M.S., & Taraban, C.B. (1991). Reactions to and willingness to express emotion in two types of relationships. *Journal of Experimental Social Psychology*, 27, 324–336.
- Costa, P.T., Jr., & McCrae, R.R. (1992). Revised NEO Personality Inventory. Odessa, FL: Psychological Assessment Resources.
- Croon, M.A., & Van Veldhoven, M.J.P.M. (2007). Predicting grouplevel outcome variables from variables measured at the individual level: A latent variable multilevel model. *Psychological Methods*, *12*, 45–57.
- Ehrhart, M.G., & Klein, K.J. (2001). Predicting followers' preferences for charismatic leadership: The influence of follower values and personality. *The Leadership Quarterly*, 12, 153–179.
- Fiedler, F.E. (1964). A contingency model of leadership effectiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 1, pp. 149–190). New York, NY: Academic Press.
- 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, 147–162.
- Gaddis, B., Connelly, S., & Mumford, M.D. (2004). Failure feedback as an affective event: Influences of leader affect on subordinate attitudes and performance. *Leadership Quarterly*, 15, 663–686.
- George, J.M. (1995). Leader positive mood and group performance: The case of customer service. *Journal of Applied Social Psychol*ogy, 25, 778–794.
- Glomb, T.M., & Hulin, C.L. (1997). Anger and gender effects in observed supervisor-subordinate dyadic interactions. Organizational Behavior and Human Decision Processes, 72, 281–307.
- Graziano, W.G., Jensen-Campbell, L.A., & Hair, E.C. (1996). Perceiving interpersonal conflict and reacting to it: The case for agreeableness. *Journal of Personality and Social Psychology*, 70, 820–835.
- Hockey, G.R.J. (1997). Compensatory control in the regulation of human performance under stress and high workload: A cognitiveenergetical framework. *Biological Psychology*, 45, 73–93.
- Homan, A.C., Hollenbeck, J.R., Humphrey, S.E., van Knippenberg, D., Ilgen, D.R., & Van Kleef, G.A. (2008). Facing differences with an open mind: Openness to experience, salience of intragroup differences, and performance of diverse work groups. *Academy of Management Journal*, 51, 1204–1222.
- Kashy, D.A., & Kenny, D.A. (2000). The analysis of data from dyads and groups. In H.T. Reis & C.M. Judd (Eds.), *Handbook of research methods in personality and social psychology* (pp. 451–477). New York, NY: Cambridge University Press.
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition & Emotion*, 13, 505–521.
- Keltner, D., Van Kleef, G.A., Chen, S., & Kraus, M. (2008). A reciprocal influence model of social power: Emerging principles and lines of inquiry. In M.P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 40, pp. 151–192). San Diego, CA: Academic Press.
- Klein, K.J., & Kozlowski, S.W.J. (Eds.). (2000). Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions. San Francisco, CA: Jossey-Bass.
- 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*, 221–234.

- Lundqvist, D., Flykt, A., & Öhman, A. (1998). The Karolinska Directed Emotional Faces—KDEF [CD ROM]. Stockholm, Sweden: Karolinska Institutet.
- Mayer, J.D., Salovey, J., & Caruso, D.R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15, 197–215.
- McCrae, R.R., & Costa, P.T., Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal* of Personality and Social Psychology, 52, 81–90.
- McEwen, B.S., & Sapolsky, R.M. (1995). Stress and cognitive function. *Current Opinion in Neurobiology*, 5, 205–216.
- Pietroni, D., Van Kleef, G.A., De Dreu, C.K.W., & Pagliaro, S. (2008). Emotions as strategic information: Effects of other's emotions on fixed-pie perception, demands, and integrative behavior in negotiation. *Journal of Experimental Social Psychology*, 44, 1444–1454.
- Shamir, B., House, R.J., & Arthur, M.B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science*, 4, 577–594.
- Smith, C.A., Haynes, K.N., Lazarus, R.S., & Pope, L.K. (1993). In search of the "hot" cognitions: Attributions, appraisals, and their relation to emotion. *Journal of Personality and Social Psychology*, 65, 916–929.
- Steiner, I.D. (1972). *Group processes and productivity*. New York, NY: Academic Press.
- Steinhauser, M., Maier, M., & Hübner, R. (2007). Cognitive control under stress: How stress affects strategies of task-set reconfiguration. *Psychological Science*, 18, 540–545.
- Suls, J., Martin, R., & David, J.P. (1998). Person-environment fit and its limits: Agreeableness, neuroticism, and emotional reactivity to interpersonal conflict. *Personality and Social Psychology Bulletin*, 24, 88–98.
- Sy, T., Côté, S., & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology*, 90, 295–305.
- Tiedens, L.Z. (2001). Anger and advancement versus sadness and subjugation: The effect of negative emotion expressions on social status conferral. *Journal of Personality and Social Psychology*, 80, 86–94.
- Van Kleef, G.A. (2009). How emotions regulate social life: The emotions as social information (EASI) model. *Current Directions in Psychological Science*, 18, 184–188.
- Van Kleef, G.A., De Dreu, C.K.W., & Manstead, A.S.R. (2004). The interpersonal effects of anger and happiness in negotiations. *Journal of Personality and Social Psychology*, 86, 57–76.
- Van Kleef, G.A., De Dreu, C.K.W., & Manstead, A.S.R. (2010). An interpersonal approach to emotion in social decision making: The emotions as social information model. In M.P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 42, pp. 45–96). San Diego, CA: Academic Press.
- 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, 562–580.