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RESEARCH ARTICLE

Powerless people don't yell but tell: The effects of social power on direct and indirect expression of anger

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Data Archiving and Sharing

Data are available at https://osf.io/73emc/?view_only=4ae0a712f7b24a92a52b612f31fad261.

Abstract

Expressing anger can engender desired change, but it can also backfire. In the present research we examined how power shapes the expression of anger. In Study 1, we found that powerless individuals were less inclined to express their anger directly but more inclined to express it indirectly by sharing it with others. Powerless participants' reluctance to express anger directly was mediated by negative social appraisals. In Study 2, we replicated the effect of power on direct anger expression in a situation in which participants had actual power (or not). Anger was evoked in the laboratory using an ecologically valid procedure, and participants were given an opportunity to express anger. Study 3 showed that powerless participants expected direct anger expression to arouse more anger than fear in the target, whereas the opposite was true for indirect anger expression. Powerful participants always expected to elicit more fear than anger in the target.

Keywords: social power, anger expression, social sharing, social appraisals

... since those who do not get angry at things at which it is right to be angry are considered foolish, and so are those who do not get angry in the right manner, at the right time, and with the right people... — (Aristotle, Nicomachean Ethics, 384–322 BC/1934)

Anger is an emotion that arises when people's goals are frustrated and someone else is held responsible (Frijda, 1986; Lazarus, 1991). Indeed, one of the main triggers of anger is unfair or disrespectful treatment (Averill, 1982; Frijda, Kuipers, & Ter Schure, 1989). From a social-functional point of view, emotional expressions are adaptive because they help to coordinate social interaction (Fischer & Manstead, 2008; Keltner & Haidt, 1999; Van Kleef, 2009). More specifically, anger is associated with a tendency to move against the person (or object) seen as responsible for the goal blockage and with a desire to bring about change (Averill, 1982; Fischer & Roseman, 2007). Besides motivating action

on the part of the person who experiences the anger (Frijda, 1986), the *expression* of anger can bring about pervasive social consequences (for a comprehensive review, see Van Kleef, 2016).

But expressing anger may not have the same consequences for all individuals. A growing body of research indicates that powerful individuals are more likely to experience positive consequences after expressing anger (e.g., getting their way), whereas powerless individuals face more negative consequences (e.g., social repercussions; Overbeck, Neale, & Govan, 2010; Sinaceur & Tiedens, 2006; Van Kleef & Côté, 2007). Do people take their power position into account when deciding whether or not to express their anger? And if so, how does this affect their expressive behavior?

Previous research provides some suggestive evidence that power shapes individuals' anger expression, but the results are inconclusive. On the one hand, studies on emotional stereotypes associated with power and status revealed that people expect individuals with high power or status to respond with anger when negative outcomes occur, whereas they expect individuals with low power or status to

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respond with sadness and guilt (Tiedens, Ellsworth, & Mesquita, 2000; Van Kleef, Homan, Finkenauer, Gündemir, & Stamkou, 2011). On the other hand, research involving actual anger experience and expression of high- and low-power individuals revealed that, during a controversial group discussion, powerless participants experienced and expressed more anger than did powerful ones (Berndahl & Martorana, 2006). Thus, the effects of power on anger expression are not straightforward.

We propose that the understanding of the intricate relationship between power and anger expression can be enhanced by distinguishing between two types of anger expression: direct and indirect (Fischer & Evers, 2011; Linden et al., 2003). By *direct anger expression* we refer to an overt expression of anger that is directed at the actual target of the anger (i.e., the person someone is angry at). By *indirect anger expression* we refer to anger that is not expressed at the target of the anger but is shared with one or more other individuals. Such indirect anger expression can be considered a form of “social sharing”—the act of sharing information about an emotion-eliciting event with others (Fischer & Evers, 2011; Kuppens, Van Mechelen, & Meulders, 2004; Linden et al., 2003; Rimé, 2009). In this article, we develop and test the hypothesis that, compared to their powerful counterparts, powerless individuals are less prone to express their anger directly, but more inclined to express it indirectly.

Even though this possibility has—to the best of our knowledge—never been investigated, a few studies provide suggestive evidence that is consistent with this idea. Studies on gender differences have found that men, who are on average (still) perceived as having higher power and status than women (Eagly, 1987), express more direct anger than women, whereas women express more indirect anger (Timmers, Fischer, & Manstead, 1998). Furthermore, Kuppens et al. (2004) showed that people prefer to express their anger directly when they are angry at a low-status individual, whereas they would rather share their anger with others when they are angry at a higher- or equal-status individual. This tangential evidence notwithstanding, the effects of power *per se* on anger expression remain unclear. Below we draw on theorizing and research on social motives and social appraisals (Evers, Fischer, Rodríguez Mosquera, & Manstead, 2005; Manstead & Fischer, 2001; Parkinson, 2011) to develop specific hypotheses about the effects of power on anger expression.

Social Power and Motives for Expressing and Suppressing Anger

The main social goal of anger is to achieve a desired outcome by changing the behavior of the target of the anger (Averill, 1982; Fischer & Evers, 2011; Fischer & Roseman, 2007; Lazarus, 1991). As such, expressing

anger can be seen as a means of rectifying a situation that has evolved in an undesired direction (e.g., being treated unfairly; Lazarus, 1991). However, people’s emotional expressions do not only depend on their own goals in a given situation, but also on the anticipation of others’ potential reactions (Manstead & Fischer, 2001). For instance, Evers et al. (2005) found that women were less likely than men to express their anger directly for fear of negative social consequences. Furthermore, negotiation studies indicate that expressions of anger can have negative repercussions depending on one’s power position. Expressions of anger on the part of more powerful individuals elicited fear in less powerful targets and thereby extracted concessions; expressions of anger on the part of less powerful individuals, in contrast, were either ignored by more powerful targets or elicited reciprocal anger in them, which in turn fueled retaliation (Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2012; Sinaceur & Tiedens, 2006; Van Kleef & Côté, 2007; Van Kleef, De Dreu, & Manstead, 2004). This suggests that when powerless individuals are aware of the potential negative repercussions of direct anger expressions, they may look for alternative, more indirect ways of expressing their anger that may be more conducive to achieving their goals.

Again, suggestive evidence is provided by research on gender differences. Fischer and Evers (2011) found that women in traditional relationships anticipated more negative social consequences of direct anger expressions than men, which is why women were reluctant to express their anger directly. We suggest that such *negative social appraisals*—anticipated negative social reactions of others to one’s emotional expressions (Evers et al., 2005; Fischer & Evers, 2011; Manstead & Fischer, 2001)—may similarly render powerless individuals less likely than their powerful counterparts to express their anger directly.

Given that angry powerless individuals—as all angry individuals—are motivated to confront the target they are angry at (Fiske & Dépret, 1996; Heine, Proulx, & Vohs, 2006; Whitson & Galinsky, 2008), we predict that they will find alternative ways of expressing their anger, namely by sharing it with others. Social sharing strengthens bonds between the expresser and those with whom the emotion is shared (Fischer & Manstead, 2008; Rimé, 2009; Rimé & Zech, 2001). Such bonding is conducive to lower-power people’s goals to seek closeness (Anderson, Keltner, & John, 2003; Magee & Smith, 2013; Van Kleef et al., 2008). Moreover, social sharing has been found to help people to form coalitions and coordinate actions, leading them to be more effective in confronting threats and pursuing goals (Kuppens, Yzerbyt, Dandache, Fischer, & van der Schalk, 2013; Peters & Kashima, 2007; Yzerbyt, Kuppens, & Mathieu, 2015). In particular, teaming up with others constitutes an effective strategy for the powerless to defend themselves against abuse by the powerful (Guinote & Lamers, 2016; Keltner, Van Kleef, Chen, & Kraus, 2008).

In sum, we suggest that sharing their anger with others (as opposed to expressing it directly) could be particularly functional for powerless individuals, as it provides them with an alternative means to counter their relative disadvantage and deal with the anger-eliciting situation. Put differently, we propose that powerless individuals' expectation that direct anger expression may backfire leads them to avoid an overt confrontation and express their anger indirectly by sharing it with others.

The Present Research

In the present studies we examined the effects of power on direct and indirect anger expression. In contrast to other studies that have explored how the perceived status of the partner in a dyadic interaction shapes individuals' anger-related behavior (Kuppens et al., 2004; Pfeiler, Wenzel, Weber, & Kubiak, 2017), we directly manipulated power—operationalized as having control over others' outcomes (Fiske, 1993; Fiske & Dépret, 1996; Keltner, Gruenfeld, & Anderson, 2003). Furthermore, we explored the underlying motives—negative social appraisals—that may explain powerful and powerless individuals' anger-expression, as well as the perceived effectiveness of these two different types of anger expression for powerful and powerless individuals.

We addressed these issues in three studies with different procedures. In Study 1, using a vignette methodology, we tested the hypotheses that powerless individuals are inclined to express less direct anger (*Hypothesis 1a*), but more indirect anger (*Hypothesis 1b*)—through social sharing—compared to powerful individuals. We also included a control condition to explore whether the effects of power on anger expression are primarily driven by high power, by low power, or by both. Second, we measured individuals' concerns related to the impact of their anger expression (i.e., negative social appraisals), hypothesizing that powerless individuals' negative social appraisals would prevent them from expressing their anger directly (*Hypothesis 2*). Following other authors who distinguished between different types of negative social

appraisals (Evers et al., 2005), we measured two different types of negative social appraisals—concerns about one's reputation and concerns about one's relationship with the target of the anger—in order to deepen our understanding of the specific content of these concerns.

In Study 2, in a lab experiment, we used a procedure that induced an actual experience of anger, and we gave powerful and powerless participants the opportunity to confront the target of their anger. The aim of this study was twofold. First, we intended to replicate the effects of power on direct anger expression (*Hypothesis 1a*) by measuring actual anger-related behavior (as opposed to intentions) in ongoing social interactions. Second, by simulating a less extreme anger-eliciting situation that commonly occurs in everyday life, we aimed to enhance the ecological validity of our research.

In Study 3 we examined whether powerless individuals expect indirect anger expression to be more effective for achieving their goals than direct anger expression. For this purpose, we assessed participants' expectations about the emotional impact their anger expression would have on the perpetrator as well as the expected positive and negative outcomes of expressing their anger. We predicted that powerless individuals would expect the perpetrator to respond with more anger than fear after having expressed their anger directly rather than indirectly (*Hypothesis 3a*). Given that powerful individuals have an increased capacity to achieve desired changes and to control their own and others' outcomes (Keltner et al., 2003), we hypothesized that high-power individuals expect to cause more fear than anger in the perpetrator regardless of whether they express their anger directly or indirectly (*Hypothesis 3b*). Using the same reasoning, we further predicted that powerless individuals anticipate more positive than negative outcomes of expressing their anger indirectly, whereas they anticipate more negative than positive outcomes after expressing anger directly (*Hypothesis 4a*). Again, powerful participants were expected to anticipate more positive than negative outcomes irrespective of the type of anger expression (*Hypothesis 4b*). Table 1 provides an overview of the hypotheses.

Table 1. Hypotheses and studies in which they were tested

H 1a	Powerless individuals express less direct anger than powerful individuals	Study 1 and 2
H 1b	Powerless individuals express more indirect anger (through social sharing) than powerful individuals	Study 1
H 2	Powerless individuals' negative social appraisals prevent them from expressing their anger directly (i.e., negative social appraisals mediate the effect of power on anger expression)	Study 1
H 3a	Powerless individuals expect the perpetrator to experience more anger than fear after having expressed their anger directly rather than indirectly.	Study 3
H 3b	Powerful individuals expect the perpetrator to experience more fear than anger regardless of whether they express their anger directly or indirectly	Study 3
H 4a	Powerless individuals anticipate more positive than negative outcomes when expressing their anger indirectly, whereas they anticipate more negative than positive outcomes when expressing anger directly	Study 3
H 4b	Powerful participants anticipate more positive than negative outcomes irrespective of the type of anger expression	Study 3

Study 1

We investigated the effects of power on direct versus indirect anger expression and negative social appraisals.

Method

Data collection. Data were collected in two phases. In Study 1a we only manipulated participants' power. In Study 1b we also varied whether there were other people present in the situation who could potentially witness any anger expressions.¹ Apart from the audience manipulation there were no differences between Study 1a and Study 1b. Given that we did not find any main or interaction effects of the audience manipulation on any of our dependent variables of interest, and given that the effects of power were the same across the two studies (i.e., there were no significant power-by-study interactions), we decided to pool the data from the two studies (293 participants in total) for economy of exposition (for a similar procedure, see Van der Schalk, Kuppens, Bruder, & Manstead, 2015). Details about the audience manipulation and the results of the separate studies can be found in the online Appendix S1.

Participants and design. Participants were undergraduate students of a Spanish university who participated in exchange for course credits. Four participants were excluded from the sample for giving a wrong answer on a comprehension check question: "Who was the person who crashed your car?" (your boss vs. your employee vs. one of your same-level colleagues). The final sample consisted of 289 participants (231 women, 57 men—one participant did not indicate his or her sex; $M_{\text{age}} = 22.39$, $SD = 4.16$). In both studies, participants were randomly assigned to the experimental conditions (high power vs. low power vs. control).

Procedure. We used a vignette methodology. Participants read the vignettes and were instructed to imagine the situation as if it actually happened to them. Then, they completed a questionnaire with our

dependent measures. Finally, participants were thanked and debriefed.

Anger induction. Participants were asked to imagine that, at the end of their working day, they witnessed their car being accidentally crashed into by another car whose driver was trying to leave the parking lot. To enhance participants' anger, the scenario described that the perpetrator did not show any intention to apologize or compensate for the damage caused. This is an instance of unfair treatment that should arouse anger according to appraisal theories of emotion (e.g., Frijda *et al.*, 1989; Lazarus, 1991).

Power manipulation. Participants in the high-power condition were asked to imagine that they were the boss of the perpetrator, who was one of their employees. As such, participants were in a position of relatively high power. Participants in the low-power condition were asked to imagine that the perpetrator was their boss, and they were one of his/her employees. As such, participants were in a position of relatively low power. A control condition was also included, in which the main character and the perpetrator had an equal power position. (In Study 1b an additional phrase was included to manipulate the audience. Specifically, the vignette informed participants that "it is rush hour, and therefore the parking lot is full of people" [audience condition], or that "it is very late, and therefore there is nobody else around" [no audience condition].) The exact wording of the scenarios is presented in the online Appendix S1.

Measures. After reading the vignette, participants answered the following measures in the same fixed order described below. All answers were given on 7-point scales ranging from 1 = *not at all* to 7 = *very much*.

Anger expression. Direct anger expression was assessed with four items adapted from Fischer and Evers (2011; "I would criticize the person who crashed my car face to face", "I would scold the person who crashed my car", "I would verbally attack the person who crashed my car", "I would express my anger to the person who crashed my car"), which were complemented with four additional items developed for this study ("I would overtly show my anger to the person who crashed my car"; and the reverse-scored "I would try to hide my anger from the person who crashed my car", "I would try not to express my anger toward the person who crashed my car", "I would try to avoid that the person who crashed my car noticed my anger"). The scale had a good reliability ($\alpha = .87$).

Indirect anger expression was assessed using three items specifically developed for this study ("I would share my anger about what happened with my colleagues", "I would criticize the person who crashed my car with my colleagues when he/she was absent",

¹The audience manipulation was included to explore a possible moderating role of the presence of other people (see Appendix S1). We advanced no formal hypothesis regarding the moderating role of the audience, because previous theorizing and research did not provide a basis for a clear prediction. On the one hand, the audience could amplify the effect of power on direct anger expression because expressing anger in the presence of an audience might be a way for high-power people to convey dominance (Van Kleef, De Dreu, & Manstead, 2010) and assert their power. On the other hand, the audience could mitigate the effect of power on direct anger expression, because high-power people might be motivated to maintain a good reputation so as to consolidate their powerful position (Keltner *et al.*, 2008). These two predictions correspond to two different pathways to social power that have been identified in the literature, namely dominance and prestige (Overbeck, 2010).

"I would vent my anger about what happened by talking about it with my colleagues; $\alpha = .84$).

Negative social appraisals. We asked participants what they would think and feel when addressing the person who crashed their car, and then they completed the following items that measure concerns related to the expresser's reputation: "It would be important for me to maintain a positive public image", "I would worry about losing face", "I would be concerned about losing the admiration and respect of others". Also, the items used by Fischer and Evers (2011) were adapted and extended to measure negative social appraisals that were suitable for the current context: "I would worry that the situation got worse", "I would worry about possible revenge from this person", "I would worry about possible negative consequences for our relationship", "I would not dare to confront this person", "I would worry that this person could form a negative opinion about me". An exploratory factor analysis with oblique rotation yielded two factors with eigenvalues greater than 1 that explained 63.41% of variance. Loadings showed that the first three items loaded onto the first component, related to negative social appraisals about one's reputation ($\alpha = .76$), whereas the last five items loaded onto the second component and were related to negative social appraisals about one's relationship with the target of the anger ($\alpha = .84$).

Emotion experience. Participants were asked to what extent they would experience anger if they were in the situation described in the vignette. To confirm that our vignette induced more anger than other negative emotions people might feel in this situation we also measured fear, shame, guilt, and anxiety.

Manipulation checks. Finally, we first asked participants to what extent the person they had to identify with had power and control over the perpetrator ($r = .527, p < .001$) and to what extent the perpetrator had power and control over him/her ($r = .816, p < .001$).

Results

Manipulation checks. To account for the inherently relative and relational nature of power, we checked the effectiveness of the power manipulation using a 3 (power: powerful, powerless, control) \times 2 (target: I have power over the perpetrator, the

perpetrator has power over me) ANOVA, with the second factor as within-participants variable. This analysis revealed a significant Power \times Target effect, $F(2, 286) = 272.87, p < .001, \eta_p^2 = .66$. Pairwise comparisons showed that participants in the high-power condition reported feeling more powerful ($M = 4.56, SD = 1.56$) than the perpetrator ($M = 1.88, SD = 0.92$), $F(1, 286) = 249.05, p < .001, \eta_p^2 = .47$. Conversely, participants in the low-power condition perceived the perpetrator as being more powerful ($M = 5.61, SD = 1.25$) than themselves ($M = 2.73, SD = 1.18$), $F(1, 286) = 293.59, p < .001, \eta_p^2 = .51$. Participants in the control condition did not perceive significant power differences between themselves ($M = 2.21, SD = 1.29$) and the perpetrator ($M = 1.92, SD = 1.08$), $F(1, 286) = 3.13, p = .078, \eta_p^2 = .01$. These results indicate that the power manipulation was successful.

The effectiveness of the anger induction was checked in two ways. First, we confirmed that participants felt that the situation described in our vignette induces significantly more anger ($M_{\text{anger}} = 5.89, SD = 1.07$) than any other emotion ($M_{\text{fear}} = 2.72, SD = 1.60$; $M_{\text{shame}} = 2.60, SD = 1.67$; $M_{\text{sadness}} = 3.25, SD = 1.69$; $M_{\text{guilt}} = 1.52, SD = 1.02$; $M_{\text{anxiety}} = 4.78, SD = 1.69$), all $t_s > 11.33$, all $p_s < .001$. Second, we conducted an ANOVA with power as the independent variable and anger experience as the dependent variable to ensure that the effectiveness of the anger induction was not affected by the power manipulation. Indeed, results did not reveal any effect of power, $F(2, 286) = .109, p = .90, \eta_p^2 = .001$, with powerful ($M = 5.91, SD = 0.97$), powerless ($M = 5.91, SD = 1.14$), and control participants ($M = 5.85, SD = 1.11$) reporting similar degrees of anger.

Anger expression. We conducted a 3 (power: powerful, powerless, control) \times 2 (type of anger expression: direct, indirect) ANOVA, with the second factor as a within-participants variable. This analysis revealed a main effect of type of expression, $F(1, 286) = 95.13, p < .001, \eta_p^2 = .25$, which was qualified by an interaction between power and type of expression, $F(2, 286) = 41.49, p < .001, \eta_p^2 = .23$. In line with Hypothesis 1a, planned comparisons revealed that powerless participants were less willing to express their anger directly than were both powerful, $t(177.46) = -5.49, p < .001, d = .82$ and control participants, $t(173.06) = -5.98, p < .001, d = .90$. The comparison between high-power participants and control

Table 2. Means and standard deviations (in parentheses) of the dependent variables of Study 1

	Low power	Control	High power
Direct anger expression	4.47 (1.21) _a	5.38 (0.88) _b	5.33 (0.93) _b
Social sharing	4.75 (1.48) _a	4.04 (1.59) _b	3.49 (1.51) _c
Negative social appraisals	4.36 (1.29) _a	3.59 (1.22) _b	3.57 (1.29) _b
about one's relationship with the target of the anger			
Negative social appraisals about one's reputation	4.09 (1.32) _a	3.50 (1.22) _b	3.77 (1.30) _{ab}

Note: Means with different subscripts differ at $p < .05$ across rows.

participants was not significant $t(191) = -.39$, $p = .694$, $d = .06$).

A reversed pattern was found for indirect anger expression. Powerless participants reported more willingness to share their anger with their colleagues than powerful, $t(188) = 5.79$, $p < .001$, $d = .84$ and control participants, $t(193) = 3.22$, $p = .002$, $d = .46$, supporting Hypothesis 1b. In addition, powerful participants were less willing to share their anger than control participants $t(191) = -2.45$, $p = .015$, $d = .35$. Means and standard deviations are presented in Table 2.

Negative social appraisals. A one-way between groups MANOVA was conducted to investigate the effect of power on participants' negative social appraisals about one's reputation and negative social appraisals about one's relationship with the target of the anger (one participant failed to complete this measure and was dropped from the analysis). This analysis revealed a multivariate effect of power, $F(4, 570) = 6.73$, $p < .001$, $\eta_p^2 = .045$. The univariate effect of power on negative social appraisals about one's reputation was significant, $F(2, 285) = 5.21$, $p = .006$, $\eta_p^2 = .035$. Powerless participants anticipated more negative consequences for their reputation than did control participants, $t(193) = 3.24$, $p = .001$, $d = .46$. The comparison between powerless and powerful participants was not significant, $t(187) = 1.66$, $p = .099$, $d = .25$. The comparison between powerful and control participants was not significant either, $t(190) = 1.52$, $p = .131$, $d = .22$ (see Table 2 for *M*s and *SD*s).

The univariate effect of power on negative social appraisals about one's relationship with the target of the anger, $F(2, 285) = 12.08$, $p < .001$, $\eta_p^2 = .078$ was significant too. Powerless participants mentioned more concerns about their relationship with the target of the anger than did powerful, $t(193) = 4.19$, $p < .001$, $d = .61$ and control participants, $t(193) = 4.28$, $p < .001$, $d = .61$; the comparison between powerful and control participants was not significant, $t(190) = .100$, $p = .921$, $d = .02$ (see Table 2 for *M*s and *SD*s).

Mediation analyses. We examined the predicted mediating role of the two types of negative social appraisals in the relation between power and direct anger expression by computing indirect effects using bias-corrected bootstrapping with 10,000 resamples and a 95% confidence interval. Following procedures outlined by Hayes and Preacher (2014) for mediation analysis with multi-categorical independent variables, power was dummy-coded (D1: low power = 1, high power = 0, control = 0; D2: low power = 0, high power = 1, control = 0). Figures 1 and 2 provide a graphical representation of the mediation analyses.

We found that the confidence interval representing the indirect effect of low power (relative to the control condition) on direct anger expression through negative social appraisals about one's

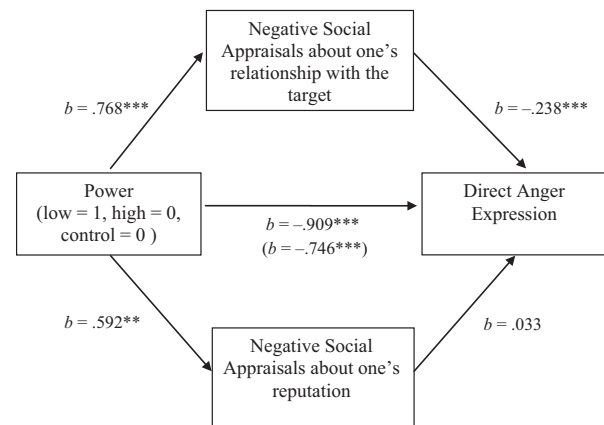


Fig. 1: Relative indirect effects of low power on direct anger expression through negative social appraisals about one's relationship with the target of the anger and negative social appraisals about one's reputation. ** $p < .01$, *** $p < .001$

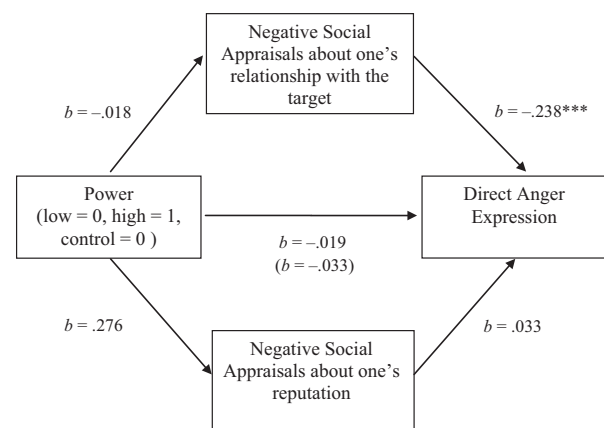


Fig. 2: Relative indirect effects of high power on direct anger expression through negative social appraisals about one's relationship with the target of the anger and negative social appraisals about one's reputation. ** $p < .01$, *** $p < .001$

relationship with the target of the anger did not include zero ($-.3285$ to $-.0850$). Therefore, powerless participants' tendencies to avoid direct anger expression could be explained by their increased concerns about possible damage to their relationship with the powerful target of their anger. These results support Hypothesis 2a. The relative indirect effect of low power through negative social appraisals about one's reputation was not significant (95% CI = -0.0533 to 0.1026). Furthermore, the relative indirect effects of high power on direct anger expression through the two types of negative social appraisals were not significant either (95% CI = -0.0827 to 0.0922) for negative social appraisals about one's relationship with the target, or (95% CI = -0.0194 to 0.0725) for negative social appraisals about one's reputation. These results show that concerns about negative repercussions for the relationship with the target of the anger reduce the willingness of powerless, but not powerful, individuals to directly express anger.

Discussion

Study 1 provides evidence that powerless participants are less willing to directly express anger at a perpetrator who aroused their anger than are powerful and control condition participants. As hypothesized, powerless individuals' reluctance to express their anger directly could be explained in terms of their heightened concerns about the repercussions of directly confronting the perpetrator. Importantly, only negative social appraisals about one's relationship with the target of the anger (and not about one's reputation) mediated the effect of power on direct anger. This is not surprising given powerful individuals' capacity to administer punishments. Conversely, powerless participants were more willing to express their anger indirectly by sharing it with others. Given that emotional sharing promotes coalition building, sharing their anger with others may ultimately help powerless individuals to defend themselves against the powerful target of the anger (Guinote & Lammers, 2016; Keltner *et al.*, 2008).

Importantly, higher-power individuals reported similar intentions to express anger directly as equal-power participants (control condition). This result provides nuance to the idea that anger is a "powerful" emotion, and that possessing power is a precondition for overtly expressing this emotion (Averill, 1997; Fischer, Rodriguez Mosquera, Van Vianen, & Manstead, 2004). Our results suggest that power does not so much increase direct anger expression, but rather that lack of power decreases it.

A limitation of Study 1 is the use of vignettes to manipulate power and induce anger. Given that participants' responses are based on hypothetical situations and anger experience, this methodology raises concerns about the generalizability of these findings to actual emotion expression (Parkinson & Manstead, 1993; Sturm & Antonakis, 2014). Study 2 aimed to address this limitation and replicate the findings of Study 1 by manipulating power in the laboratory and measuring actual anger expression.

Study 2

In this study we used an experimental anger-induction paradigm² to investigate the effects of power on actual anger expression in real-time social interaction.

Method

Participants and design. One hundred and nineteen undergraduate students of a Spanish university voluntarily took part in exchange for course credits.

Participants were randomly assigned to one of the two experimental conditions (high power vs. low power). Two participants were aware of the real objective of the study and were excluded from the sample prior to the analyses. Thus, the final sample consisted of 117 participants (99 women, 18 men; $M_{\text{age}} = 19.38$, $SD = 2.78$).

Procedure. Participants were told that they were going to participate in pairs in a study about leadership. At least 24 hours before taking part in the study, they completed a questionnaire that allegedly measures leadership skills and capacity to effectively occupy powerful positions. They participated individually in sessions that lasted about 30 minutes. Before starting, the participants gave informed consent and were reminded that they could withdraw from the study without any penalty if they wanted to.

Participants were informed that the study consisted of two parts: first an introductory part, followed by the main part of the study. This second part would involve working on a task together with an unknown partner. Participants were told that they would perform the role of leader or subordinate in the upcoming task, and that the assignment to their role was based on their leadership skills, as assessed by the previously completed questionnaire. In fact, participants were randomly assigned to one of these experimental conditions.

In addition, participants were informed about their duties during the upcoming task. Leaders were to give instructions and evaluate a subordinate's performance on several tasks. Subordinates would be limited to following their leader's instructions. Participants were also told that given that the role of leaders was very important, leaders would receive 0.2 credits for their participation. Subordinates would receive 0.1 credit by default, and later leaders would decide whether they also deserved to get the extra course credit.

Next, participants were informed about their role and they were asked to proceed with the allegedly first part. They were told that this was an introductory task called "the minimal interaction", which consisted of interacting with their leader or subordinate (depending on the condition) through a chat. They were informed that the minimal interaction is a short spontaneous interaction between two unknown persons that entails exchanging a single written message and a single symbol of non-verbal communication (e.g., an emoticon). They were told that research has shown that this kind of brief interaction is sufficient to permit people who participate in small working groups to form a first impression about their co-workers.

Then, at the point where the task was supposed to start, an "offline" symbol appeared on the screen, accompanied by the following message: "Your partner is offline, please call the experimenter". The experimenter informed the participants that she would contact their partner to figure out what had happened. After a minute, the experimenter entered again into

²We first conducted a pilot study in order to test whether the procedure we were planning to use was indeed commonly perceived as anger eliciting (see Supporting Materials S2).

the cubicle and informed the participants that their partner had told her that something had happened to him/her and he/she would be late. The experimenter told the participants that they had to wait for the other person to arrive; otherwise it would not be possible for them to complete the study. All participants were made to wait in the cubicle for 15 minutes.

Afterwards, participants were informed that their partner was online and that they could proceed with the online interaction. They were also reminded about their role during the experiment. Participants were told that the person who was randomly selected to start “the minimal interaction” was their partner, so that they would first receive their partner’s message and could then send a message back.

All participants received the following message: “Well, I am here now, so we can start. On my way here, I met a friend by coincidence, and we had a coffee together, that’s why I was late. I made you wait, but that’s OK. Being patient is a good thing, isn’t it?” The message was accompanied by an emoticon that was expected to be considered as a sign of disrespect and therefore intensify the anger induction (see Supporting Materials S2).

Afterwards, participants were instructed to send their own message to their partners, also accompanied by an emoticon. Then they were informed that the first part was completed and—before continuing with the other tasks—they were asked to answer several questions concerning their experience during the interaction. It was made clear to participants that their partner would not see their responses and that these questions were just to inform the experimenters about their feelings during the interaction with their partner. Finally, participants did not perform any other task, and they were thanked and debriefed.

Measures. Participants completed the following measures in the same fixed order described below (all using 7-point scales ranging from 1 = *not at all* to 7 = *very much*).

Manipulation check. We assessed participants’ perceived power over their partner (“To what extent will you have control over your partner during the following tasks?”, “To what extent will your partner’s outcomes during the following tasks depend on your decision?”; $r = .84$, $p < .001$). We also assessed the extent to which participants believed their partner would have power over them (“To what extent will your partner have control over you during the following tasks?”, “To what extent will your outcomes during the following tasks depend on your partner’s decision?”; $r = .74$, $p < .001$).

Anger expression. Two observers assessed the messages that participants sent to their partners. The observers were first informed about the situation participants had encountered and the remark made by their partner in order to contextualize the messages

they were to assess. Observers were blind to the experimental conditions and the aims of the study. They rated the extent to which the participants expressed anger/annoyance through the messages they sent to their partners using a 7-point scale ranged from 1 = not at all to 7 = very much. Inter-observer agreement was good ($r = .76$, $p < .001$), so the ratings of the two observers were averaged to form an index of anger expression.

Emotion experience. Participants were asked to what extent their partner’s message made them feel the following emotions: anger (angry, annoyed, and outraged; $\alpha = .96$), sadness (sad, depressed, and afflicted; $\alpha = .91$), and happiness (joyful, happy, and satisfied; $\alpha = .92$).

Results

Manipulation checks. A 2 (power: powerful, powerless) \times 2 (target: I have power over my partner, my partner has power over me) ANOVA, with the second factor as within-participants variable revealed a significant Power \times Target effect, $F(1, 115) = 730.46$, $p < .001$, $\eta_p^2 = .864$. Pairwise comparisons showed that participants in the high-power condition perceived that they had more power over their partner ($M = 6.33$, $SD = 1.01$) than their partner over them ($M = 1.63$, $SD = 1.09$), $F(1, 115) = 394.39$, $p < .001$, $\eta_p^2 = .774$. Conversely, participants in the low-power condition perceived that their partner had more power ($M = 6.02$, $SD = 1.25$) than themselves ($M = 1.63$, $SD = 1.11$), $F(1, 115) = 337.44$, $p < .001$, $\eta_p^2 = .746$. These results indicate that the power manipulation had the intended effect.

The effectiveness of the anger induction was checked in two ways. First, we confirmed that participants experienced significantly more anger ($M = 3.56$, $SD = 1.95$) than sadness, $M = 1.30$, $SD = 0.67$; $t(116) = 13.27$, $p < .001$, $d = 1.55$ and joy, $M = 2.88$, $SD = 1.69$; $t(116) = 2.21$, $p = .029$, $d = .37$. Second, we conducted an ANOVA with power as the independent variable and anger experience as the dependent variable. This analysis did not reveal any effect of power, $F(1, 115) = .12$, $p = .726$, $\eta_p^2 = .001$, showing that our anger induction equally affected participants in both conditions: $M = 3.62$, $SD = 1.91$ and $M = 3.49$, $SD = 2.00$ for the powerful and the powerless participants, respectively.

Anger expression. We conducted an ANOVA with power as the independent variable and observer’s ratings of the anger expressed by participants towards their partners as the dependent variable. Consistent with Hypothesis 1a, this analysis revealed a significant effect of power, $F(1, 115) = 4.73$, $p = .032$, $\eta_p^2 = .040$. Participants in the high-power condition ($M = 3.32$, $SD = 1.42$) expressed more anger toward their partner than did participants in the low-power condition ($M = 2.80$, $SD = 1.15$).

Discussion

The findings of Study 2 provide additional evidence that power affects people's direct anger expression. Consistent with the results of Study 1, we found that powerless participants expressed less anger toward their partner than did powerful participants. Importantly, this effect was replicated in a situation in which participants were conferred actual power (or not) and in which they actually experienced anger due to a more common and less extreme cause than in Study 1. Moreover, in Study 2, the observed differences between powerful and powerless participants concerned their actual anger-related behavior assessed by external observers rather than their self-reported intentions to express anger. The convergence between the findings of Study 1 and Study 2 alleviates some of the doubts about whether participants' intentions in hypothetical scenarios correspond to what they would do in real situations.

Together the results of Study 1 and Study 2 suggest that powerless individuals avoid expressing anger directly and instead opt for more indirect ways of expressing their anger. This suggests that powerless individuals believe that indirect anger expression is more effective than direct anger expression. Study 3 was designed to test this idea.

Study 3

The goal of Study 3 was to examine whether powerless individuals consider indirect anger expression to be a more effective way to achieve their goals than direct anger expression. It has been suggested that one of the social functions of emotions is to elicit reciprocal and complementary affective reactions in others that motivate specific behaviors and help individuals to meet social goals (Fischer & Manstead, 2008; Keltner & Haidt, 1999; Van Kleef, Van Doorn, Heerdink, & Koning, 2011). Reciprocal anger and complementary fear reactions are the most common responses to someone's anger expression (Dimberg, Thunberg, & Elmehed, 2000; Lelieveld et al., 2012; Van Kleef et al., 2004). These effects of anger expression are particularly important in light of their associated behavioral consequences, which determine whether or not the anger expression is likely to be effective. For example, the perpetrator's fear reactions may lead to compliance with the expresser's demands, whereas angry reactions may fuel a desire to retaliate (Lelieveld et al., 2012; Van Kleef & Côté, 2007). Thus the perceived effectiveness of the anger expression depends on the ratio between the anticipated desired and undesired outcomes (Ashburn-Nardo, Blanchar, Petersson, Morris, & Goodwin, 2014; Good, Moss-Racusin, & Sanchez, 2012).

Building on these ideas, we considered participants' expectations regarding the emotional impact their anger expression would have on the

perpetrator (anger vs. fear), as well as the expected downstream positive versus negative outcomes of their anger expression that might follow from the emotional responses evoked in the perpetrator. As outlined in the introduction, we hypothesized that powerless participants would expect the perpetrator to respond with more anger than fear after a direct rather than an indirect anger expression (*Hypothesis 3a*). For powerful individuals we predicted that they would expect the target of their anger to respond with more fear than anger irrespective of the type of anger expression (*Hypothesis 3b*). A similar pattern was anticipated with regard to the expected outcomes of the anger expression. We expected that powerless participants who express their anger directly would anticipate more negative than positive outcomes, whereas powerless individuals who express their anger indirectly would anticipate more positive than negative outcomes (*Hypothesis 4a*). For powerful individuals we predicted that they would expect their anger expression to have more positive than negative outcomes regardless of the type of expression (*Hypothesis 4b*).

Method

Participants and design. One hundred and ninety-four undergraduate students of a Spanish university took part in this study in exchange for course credits. We excluded ten participants who gave a wrong answer on a comprehension check question ("The person we asked you to identify with was a boss or an employee"). An additional filter was applied for participants who had participated in Study 1. A total of 178 participants (124 women, 54 men; $M_{\text{age}} = 21.35$, $SD = 3.17$) were included in the sample. They were randomly assigned to the experimental conditions of a 2 (power: high vs. low) \times 2 (anger expression: direct vs. indirect) between-participants design.

Procedure. We followed the same procedure as in Study 1.

Materials. The vignettes used in this study were similar to the ones used in Study 1, but some additional information was provided to manipulate the type of anger expression. The vignette in the direct anger condition informed participants that they expressed their anger directly to the perpetrator in a face-to-face confrontation, whereas in the indirect anger condition participants did not say anything to the perpetrator but instead shared their anger with their colleagues. The full texts of the scenarios can be found in the online Appendix S1.

Measures. After reading the vignette, participants completed a questionnaire that included the following measures in the same fixed order they are presented below. All answers were given using a 7-point scale running from 1 = *not at all* to 7 = *very much*.

Anger experience. One question was included to test whether the situation described in the vignette led participants to feel angry.

Negative and positive anticipated outcomes. Six of the items that composed the measure of negative social appraisals in Study 1 were used to measure the expected negative outcomes after having expressed anger (“I would worry about losing face”, “I would be concerned about losing the admiration and respect of others”, “I would worry about possible revenge from my boss/employee”, “I would worry about the possible negative consequences for my relationship with my boss/employee”, “I would worry that my boss/employee could form a negative opinion about me”, “I would worry that the situation got worse”). We also used an additional item, “I would expect my reaction to have negative consequences for me” ($\alpha = .81$). Five items were used to measure expected positive outcomes (“I could make my boss/employee repair the damage caused”, “I could make my boss/employee apologize”, “I could manage to solve the problems that this situation caused me”, “I would be confident that ultimately everything would go well”, “I would expect my reaction to have positive consequences for me”; $\alpha = .84$).

Perpetrator’s reciprocal and complementary emotional reactions. Participants were asked to what extent they expected the perpetrator to experience anger and fear after having expressed their anger.

Manipulation check of power. The same four items used in Study 1 were included to measure participants’ perceptions that they had power/control over the perpetrator ($r = .55$, $p < .001$) and their perception that the perpetrator had power/control over them ($r = .68$, $p < .001$).

Results

Manipulation checks. The power manipulation was checked with a 2 (power: powerful, powerless) \times 2 (target: I have power over the perpetrator, the perpetrator has power over me) ANOVA, with the second factor as within-participants variable. The analysis revealed a significant Power \times Target effect, $F(1, 176) = 435.43$, $p < .001$, $\eta_p^2 = .71$. Participants in the high-power condition reported having more power ($M = 5.24$, $SD = 1.34$) than the perpetrator ($M = 2.15$, $SD = 1.13$), whereas participants in the low-power condition reported having less power ($M = 2.59$, $SD = 1.33$) than the perpetrator ($M = 5.75$, $SD = 1.13$). Therefore, the power manipulation was successful.

We then conducted an ANOVA with power and type of anger expression as independent variables and anger experience as the dependent variable. This analysis revealed an unanticipated but weak main effect of type of anger expression on experienced anger, $F(1, 174) = 3.96$, $p = .048$, $\eta_p^2 = .022$: Participants in the indirect anger condition ($M = 6.36$; $SD = 0.78$)

reported feeling somewhat more angry about what had happened than participants in the direct anger condition ($M = 6.09$; $SD = 1.11$). There was a similarly weak effect of power, $F(1, 174) = 3.96$, $p = .048$, $\eta_p^2 = .022$: powerless participants ($M = 6.36$; $SD = 0.96$) reported feeling more anger than powerful participants ($M = 6.09$; $SD = 0.96$). There was no interaction effect of Power \times Type of anger expression, $F(1, 174) = .023$, $p = .879$, $\eta_p^2 = .000$.

Perpetrator’s reciprocal and complementary emotional reactions. We performed a repeated-measures ANOVA on participants’ expectations regarding the perpetrator’s emotional reaction, with power (high vs. low) and type of anger expression (direct vs. indirect) as between-participants factors and perpetrator’s anticipated emotion (anger vs. fear) as a within-participants factor. The analysis revealed a main effect of emotion, $F(1, 174) = 34.51$, $p < .001$, $\eta_p^2 = .17$, and a main effect of power, $F(1, 174) = 44.24$, $p < .001$, $\eta_p^2 = .20$, which were qualified by a Power \times Emotion interaction, $F(1, 174) = 74.92$, $p < .001$, $\eta_p^2 = .30$, as well as an interaction of Emotion \times Type of Anger Expression, $F(1, 174) = 15.00$, $p < .001$, $\eta_p^2 = .079$. More importantly for our predictions (*Hypotheses 3a and 3b*), these effects were in turn qualified by a Power \times Type of Anger Expression \times Emotion interaction, $F(1, 174) = 7.06$, $p = .009$, $\eta_p^2 = .039$.³

Probing of the anticipated three-way interaction revealed a significant two-way interaction between type of anger expression and emotion for low-power participants, $F(1, 174) = 21.07$, $p < .001$, $\eta_p^2 = .11$, which was consistent with Hypothesis 3a. Pairwise comparisons showed that low-power participants expected their direct anger expressions to elicit more anger ($M = 4.11$; $SD = 1.60$) than fear ($M = 2.63$; $SD = 1.60$) in the perpetrator, $F(1, 174) = 22.44$, $p < .001$, $\eta_p^2 = .11$. Conversely, low-power participants expected their indirect anger expressions to elicit more fear ($M = 3.40$; $SD = 1.70$) than anger ($M = 2.81$; $SD = 1.53$) in the perpetrator, $F(1, 174) = 3.32$, $p = .070$, $\eta_p^2 = .02$ (see Figure 3), although the latter contrast did not reach conventional levels of statistical significance.

For powerful participants, the interaction between type of anger expression and emotion was not significant, $F(1, 174) = .74$, $p = .39$, $\eta_p^2 = .004$. Instead, consistent with Hypothesis 3b, a main effect of emotion among high-power participants showed that powerful individuals expected the perpetrator to experience more fear ($M = 5.57$; $SD = 1.32$) than anger ($M = 3.26$; $SD = 1.77$), $F(1, 174) = 106.85$, $p < .001$,

³If we include in the model the experienced anger as a covariate as well as the interaction terms of this variable with the other factors our anticipated three-way interaction Power \times Type of Anger Expression \times Emotion remains significant, $F(1, 171) = 7.49$, $p = .007$, $\eta_p^2 = .042$.

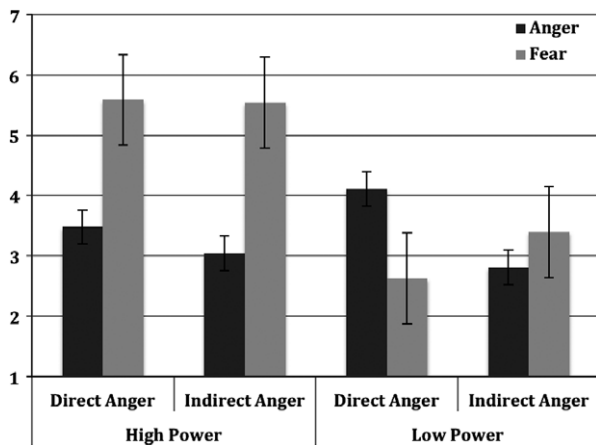


Fig. 3: Participants' expectations regarding perpetrator's complementary (fear) and reciprocal (anger) emotional reactions as a function of expresser's power and type of anger expression. Bars represent standard error of the mean

$\eta_p^2 = .38$, regardless of the way they expressed their anger.

To gain additional insight in the pattern of the three-way interaction, we also compared the expected emotional impact of direct versus indirect anger expressions. This revealed that powerless participants expected the perpetrator to react with more anger when they expressed their anger directly ($M = 4.11$; $SD = 1.60$) than when they did so indirectly ($M = 2.81$; $SD = 1.53$), $F(1, 174) = 13.33$, $p < .001$, $\eta_p^2 = .07$. Conversely, powerless participants anticipated that the perpetrator would react with more fear when they expressed their anger indirectly ($M = 3.40$; $SD = 1.70$) rather than directly ($M = 2.63$; $SD = 1.60$), $F(1, 174) = 5.89$, $p = .016$, $\eta_p^2 = .03$.

Expectations about negative and positive outcomes. We conducted a 2 (power: high vs. low) \times 2 (type of anger expression: Indirect vs. direct) \times 2 (outcomes: positive vs. negative) repeated-measures ANOVA, with the last variable as within-participants variable. Contrary to our predictions (Hypotheses 4a and 4b), the Power \times Type of anger expression \times Outcomes interaction effect was not significant, $F(1, 174) = 1.38$, $p = .242$, $\eta_p^2 = .01$. We also did not find a main effect of power, $F(1, 174) = 2.06$, $p = .153$, $\eta_p^2 = .01$ or type of anger expression, $F(1, 174) = 1.02$, $p = .313$, $\eta_p^2 = .01$. However, the analysis did reveal a significant main effect of outcomes, $F(1, 174) = 53.93$, $p < .001$, $\eta_p^2 = .24$, which was qualified by a Power \times Outcomes interaction, $F(1, 174) = 15.63$, $p < .001$, $\eta_p^2 = .082$. After expressing anger, powerful participants anticipated more positive ($M = 5.41$, $SD = 1.26$) than negative outcomes ($M = 3.92$, $SD = 1.13$), $F(1, 174) = 64.59$, $p < .001$, $\eta_p^2 = .27$, whereas for powerless participants this difference was weaker ($M_{\text{positive}} = 5.07$, $SD = 1.15$) and ($M_{\text{negative}} = 4.62$,

$SD = 1.26$), albeit still significant, $F(1, 174) = 5.68$, $p = .018$, $\eta_p^2 = .03$. The interaction between type of anger expression and outcomes was not significant, $F(1, 174) = 1.06$, $p = .31$, $\eta_p^2 = .01$.

Discussion

In line with our theorizing, Study 3 revealed that low-power participants expected their direct anger expressions to evoke more anger than fear in the target (i.e., a reciprocal emotional reaction), whereas they expected indirect anger expressions to evoke more fear than anger (i.e., a complementary emotional reaction). In contrast, high-power participants expected their anger to elicit more fear than anger in the target, regardless of whether they expressed it directly or indirectly. This is consistent with the idea that powerful individuals have a greater capacity to attain desired outcomes. Thus, powerful individuals are confident that expressing anger in any way will cause the desired complementary emotional reaction in the perpetrator.

A complementary reaction of fear could be taken as a subtle indicator of expected effectiveness of the anger expression, whereas an expected reciprocal angry reaction could be seen as a sign of an inefficient anger expression (Lelieveld et al., 2012). Surprisingly, however, we did not find corresponding effects of power and emotional expression on expected positive and negative outcomes. Both powerful and powerless individuals anticipated more positive than negative outcomes, regardless of whether they expressed their anger directly or indirectly, although this difference was greater for powerful individuals. However, powerless individuals did not anticipate even more positive than negative outcomes in the indirect rather than in the direct anger condition. A possible explanation could be that expected outcomes in case of indirect anger expression referred to more long-term consequences, which also depend on many other factors. For instance, positive outcomes might depend on the reaction of the people with whom the emotion is shared. Therefore, it might be more difficult for powerless individuals to anticipate this kind of outcome. By contrast, the target's emotional reaction is a more immediate effect of the anger expression and may therefore be easier to anticipate.

Another reason for the absence of the anticipated interaction effect on anticipated outcomes might be that although the people with whom the emotion is shared are related to the context of the work (i.e., colleagues), the emotion-eliciting event is unrelated to this context (i.e., a car crash). A different emotion-eliciting event such as goal blockage or injustice related to work (e.g., salary reduction) might have increased powerless individuals' capacity to anticipate that sharing their anger with others is a more effective strategy to deal with the situation.

General Discussion

Building on the distinction between direct and indirect anger expression (Fischer & Evers, 2011; Linden *et al.*, 2003), we conducted three studies to enhance understanding of how power shapes anger expression, and to provide insight into the motives that underlie the anger expression strategies of high- versus low-power individuals. In line with our predictions, results across the three studies provide evidence that high-power individuals are more likely to express their anger directly at the target of the anger, whereas low-power individuals are more likely to express their anger indirectly by sharing it with others. Low-power participants were more likely to expect that direct anger expressions would evoke reciprocal anger in the target rather than complementary fear, whereas high-power participants expected that both direct and indirect anger expressions would elicit fear in the target. Furthermore, low-power individuals were more likely than their high-power counterparts to expect that direct anger expression would bring about negative consequences for them, which explained why they exhibited less direct anger expression. Below we discuss the theoretical implications of our findings, consider the strengths and limitations of our studies, and provide suggestions for future research.

Study 1 revealed that powerless participants were less willing to express their anger directly, and that their negative social appraisals accounted for this effect. In addition, low-power individuals were more likely to express their anger indirectly. These results complement and extend previous findings that anger is expressed more directly toward low-status individuals and more indirectly toward high-status individuals (Kuppens *et al.*, 2004), and they provide novel insight into the underlying mechanisms that drive high- versus low-power people's differential anger expressions. Furthermore, they are compatible with research on gender differences, which has found that women in traditional relationships do not express their anger directly because they anticipate more social costs (Fischer & Evers, 2011). It should be noted, however, that measures were presented in a fixed order. This might raise concerns that the indirect effect of power on anger expression through negative social appraisals could reflect participants' general desire for consistency. However, the congruence of our findings with the existing literature is a reason to believe that results reflect real relationship between constructs.

Moreover, our results also go beyond previous findings by further clarifying the nature of these social costs. Following other authors who also distinguished between different types of negative social appraisals (see Evers *et al.*, 2005), we included two different categories of concerns: those related to the expresser's reputation and the ones about the relationship with the target of the anger. Our results showed that only the latter appraisals accounted for the effects of power

on direct anger expression. We consider that this mediating mechanism might be specific to power (and not status). This is because negative social appraisals about repercussions for the relationship with the target are clearly related to a core aspect of power, namely the capacity to administer rewards and punishments (Fiske, 1993; Fiske & Dépret, 1996; Keltner *et al.*, 2003).

Previous studies on the interpersonal effects of anger expression showed that when anger is expressed directly by a powerless negotiator, the powerful counterpart gets angry and becomes even more demanding (Lelieveld *et al.*, 2012; Van Kleef & Côté, 2007). The results of Study 3 suggest that powerless individuals are aware of these consequences when expressing anger, as it revealed that low-power individuals who express their anger directly anticipate that the powerful perpetrator will react with more anger than fear. However, Study 3 also showed that when powerless individuals express their anger indirectly, they expect the perpetrator to experience more fear than anger. To our knowledge this is the first evidence suggesting that powerless individuals express their anger indirectly because they expect such expressions to elicit more helpful emotions in the target.

The inclusion of an equal-power control condition in Study 1 provided insight into where most of the action occurs. Our data indicate that the effects of power on direct anger expression are driven primarily by low- as opposed to high-power individuals. These findings add nuance to the stereotype that the powerful are quick to show their anger (Averill, 1997; Taylor & Risman, 2006; Tiedens *et al.*, 2000). Our data suggest instead that the powerless are especially likely to suppress direct expressions of anger. With regard to indirect anger expression, we found that high and low power both contribute to the effect: high-power individuals reported being less likely to share their anger with others than equal-power individuals, whereas low-power individuals reported being more likely to do so. A downstream consequence of this tendency could be that, by sharing their anger with others, lower-power individuals develop richer social networks than higher-power individuals, who are less inclined to involve others in their anger experiences (besides the targets of their anger, whom they tend to confront directly).

Indeed, previous findings converge on the idea that lack of power makes individuals more prone to affiliate with others (Anderson *et al.*, 2003; Case, Conlon, & Maner, 2015; Magee & Smith, 2013; Van Kleef *et al.*, 2008). Sharing one's emotion with others can be considered another manifestation of powerless individuals' affiliative tendencies. However, our findings that powerless individuals expected to evoke fear in the perpetrator by sharing their anger with others highlight another, more instrumental, function of this type of anger expression. Analogous to other regulatory social dynamics (e.g., gossiping; Keltner *et al.*, 2008), emotional sharing among the powerless could serve to

keep the powerful in check and achieve their goals via alternative ways.

However, this is still indirect evidence since in our research powerless individuals were not found to anticipate even more positive than negative outcomes after an indirect anger expression. Future studies are needed in order to support this idea. Manipulating the target with whom anger is shared (e.g., ingroup vs. outgroup members) might offer additional insights into this instrumental function of social sharing. If anger is shared with outgroup members it could be expected to be less effective than anger shared with ingroup members (e.g., other colleagues).

At first glance, our results may appear to contradict previous findings suggesting that powerless individuals express more anger (Berdahl & Martorana, 2006). However, in this previous study anger was not experienced because of an injustice committed by a powerless or powerful target (as in the present studies), but rather because participants were involved in a controversial discussion. Furthermore, powerful or powerless participants in Berdahl and Martorana's study expressed anger in front of a group and not directly toward (or about) a powerless or a powerful target. These differences concerning the relationship between the *source* (about what or whom the anger is experienced) and the *target* of the anger (toward whom the anger is expressed; see Timmers et al., 1998; Van Kleef, 2016) may account for these apparently contradictory results.

Importantly, the effect of power on direct anger expression was replicated using different methodologies and different anger inductions. The vignette methodology used in Study 1 permitted us to analyze the effects of power in a work context and to use an intense anger-eliciting event that could not be modelled in the laboratory for ethical and practical reasons. Despite its common use in research on emotion (e.g., Hess, Adams, & Kleck, 2005; Sinaceur & Tiedens, 2006; Van Doorn, Heerdink, & Van Kleef, 2012), the vignette methodology has been criticized for its ecological validity (for a discussion, see Parkinson & Manstead, 1993). In Study 2 we conferred actual power to our participants and we used a more realistic (and less intense) anger induction. The convergence between the results of the two studies lends credence to our main argument and also mitigates some of the doubts that one may have about the use of vignettes in emotion research. However, the paradigm used in Study 2, which involved direct dyadic interaction between leader and subordinate, did not allow us to measure indirect anger expression to equal-power peers. Future studies could use a different paradigm to replicate the effect of power on indirect anger expression by giving participants the opportunity to interact and share (or not) their anger with equal-power peers.

In conclusion, our research shows that powerless and powerful individuals differ in the way they express their anger. In conjunction with previous research on the interpersonal effects of anger expressions by

powerful versus powerless individuals (Lelieveld et al., 2012; Sinaceur & Tiedens, 2006; Van Kleef et al., 2004), our data suggest that both powerful and powerless individuals have rather accurate perceptions of whether expressing anger directly or indirectly is likely to be effective. This allows individuals at different hierarchical levels to express their anger in socially functional ways—or, as Aristotle put it: in the right manner, at the right time, and with the right people.

Compliance with Ethical Standards

The manuscript adheres to ethical guidelines specified in the APA Code of Conduct as well as the ethical guidelines of the university in which the research was conducted.

Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

References

- Anderson, C., Keltner, D., & John, O. P. (2003). Emotional convergence between people over time. *Journal of Personality and Social Psychology, 84*, 1054–1068. <https://doi.org/10.1037/0022-3514.84.5.1054>
- Aristotle (1934). *Nicomachean ethics* (H. Rackham, Trans.). Cambridge, MA: Harvard University Press.
- Ashburn-Nardo, L., Blanchar, J. C., Petersson, J., Morris, K. A., & Goodwin, S. A. (2014). Do you say something when it's your boss? The role of perpetrator power in prejudice confrontation. *Journal of Social Issues, 70*, 615–636. <https://doi.org/10.1111/josi.12082>
- Averill, J. R. (1982). *Anger and aggression*. New York, NY: Springer.
- Averill, J. R. (1997). The emotions: An integrative approach. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 513–541). San Diego, CA: Academic Press.
- Berdahl, J. L., & Martorana, P. (2006). Effects of power on emotion and expression during a controversial group discussion. *European Journal of Social Psychology, 36*, 497–509. <https://doi.org/10.1002/ejsp.354>
- Case, C. R., Conlon, K. E., & Maner, K. (2015). Affiliation-seeking among the powerless: Lacking power increases social affiliative motivation. *European Journal of Social Psychology, 45*, 378–385. <https://doi.org/10.1002/ejsp.2089>
- Dimberg, U., Thunberg, M., & Elmehed, K. (2000). Unconscious facial reactions to emotional facial expressions. *Psychological Science, 11*, 86–89. <https://doi.org/10.1111/1467-9280.00221>
- Eagly, A. H. (1987). *Sex differences in social behavior: A social role interpretation*. Hillsdale, MI: Erlbaum.
- Evers, C., Fischer, A. H., Rodríguez Mosquera, P. M., & Manstead, A. S. R. (2005). Anger and social appraisal: A

- "spicy" sex difference? *Emotion*, 5, 258–266. <https://doi.org/10.1037/1528-3542.5.3.258>
- Fischer, A. H., & Evers, C. (2011). The social costs and benefits of anger as a function of gender and relationship context. *Sex Roles*, 65, 23–34. <https://doi.org/10.1007/s11199-011-9956-x>
- Fischer, A. H., & Manstead, A. S. R. (2008). Social functions of emotion. In M. Lewis, J. Haviland-Jones, & L. Feldman Barrett (Eds.), *Handbook of emotions* (3rd ed., pp. 456–468). New York, NY: Guilford Press.
- Fischer, A. H., Rodriguez Mosquera, P. M., Van Vianen, A. E. M., & Manstead, A. S. R. (2004). Gender and culture differences in emotion. *Emotion*, 4, 87–94. <https://doi.org/10.1037/1528-3542.4.1.87>
- Fischer, A. H., & Roseman, I. J. (2007). Beat them or ban them: The characteristics and social functions of anger and contempt. *Journal of Personality and Social Psychology*, 93, 103–115. <https://doi.org/10.1037/0022-3514.93.1.103>
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *The American Psychologist*, 48, 621–628. <https://doi.org/10.1037/0003-066x.48.6.621>
- Fiske, S. T., & Dépret, E. (1996). Control, interdependence and power: Understanding social cognition in its social context. *European Review of Social Psychology*, 7, 31–61. <https://doi.org/10.1080/14792779443000094>
- Frijda, N. H. (1986). *The emotion*. London, UK: Cambridge University Press.
- Frijda, N. H., Kuipers, P., & Ter Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology*, 52, 212–228. <https://doi.org/10.1037/0022-3514.57.2.212>
- Good, J. J., Moss-Racusin, C. A., & Sanchez, D. T. (2012). When do we confront? Perceptions of costs and benefits predict confronting discrimination on behalf of the self and others. *Psychology of Women Quarterly*, 36, 210–226. <https://doi.org/10.1177/0361684312440958>
- Guinote, A., & Lammers, J. (2016). Accentuation of Tending and Befriending Among the Powerless. In M. Bukowski, I. Fritsche, A. Guinote, & M. Kofta (Eds.), *Coping with lack of control in a social world* (pp. 185–202). New York, NY: Taylor & Francis.
- Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67, 451–470. <https://doi.org/10.1111/bmsp.12028>
- Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The meaning maintenance model: On the coherence of social motivations. *Personality and Social Psychology Review*, 10, 88–110. https://doi.org/10.1207/s15327957pspr1002_1
- Hess, U., Adams, R., & Kleck, R. (2005). Who may frown and who should smile? Dominance, affiliation, and the display of happiness and anger. *Cognition & Emotion*, 19, 515–536. <https://doi.org/10.1080/02699930441000364>
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach and inhibition. *Psychological Review*, 110, 265–284. <https://doi.org/10.1037/0033-295x.110.2.265>
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition & Emotion*, 13, 505–522. <https://doi.org/10.1080/026999399379168>
- Keltner, D., Van Kleef, G. A., Chen, S., & Kraus, M. W. (2008). A reciprocal influence model of social power: Emerging principles and lines of inquiry. *Advances in Experimental Social Psychology*, 40, 151–192. [https://doi.org/10.1016/s0065-2601\(07\)00003-2](https://doi.org/10.1016/s0065-2601(07)00003-2)
- Kuppens, P., Van Mechelen, I., & Meulders, M. (2004). Every cloud has a silver lining: Interpersonal and individual differences determinants of anger-related behaviors. *Personality and Social Psychology Bulletin*, 30, 1550–1564. <https://doi.org/10.1177/0146167204271176>
- Kuppens, T., Yzerbyt, V. Y., Dandache, S., Fischer, A. H., & van der Schalk, J. (2013). Social identity salience shapes group-based emotions through group-based appraisals. *Cognition and Emotion*, 27, 1359–1377. <https://doi.org/10.1080/02699931.2013.785387>
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.
- 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, 1209–1221. <https://doi.org/10.1177/01461672124446938>
- Linden, W., Hogan, B. E., Rutledge, T., Chawla, A., Lenz, J. W., & Leung, D. (2003). There is more to anger coping than "in" or "out". *Emotion*, 3, 12–29. <https://doi.org/10.1037/1528-3542.3.1.12>
- Magee, J. C., & Smith, P. K. (2013). The social distance theory of power. *Personality and Social Psychology Review*, 17, 158–186. <https://doi.org/10.1177/1088868312472732>
- Manstead, A. S. R., & Fischer, A. H. (2001). Social appraisals: The social word as object of and influence on appraisal processes. In K. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisals processes in emotion: Theory, method, research* (pp. 221–232). New York, NY: Oxford University Press.
- Overbeck, J. R. (2010). Concepts and historical perspectives on power. In A. Guinote & T. Vescio (Eds.), *The social psychology of power* (pp. 19–45). New York, NY: Guilford Press.
- Overbeck, J. R., Neale, M. A., & Govan, C. L. (2010). I feel, therefore you act: Intrapersonal and interpersonal effects of emotion on negotiation as a function of social power. *Organizational Behavior and Human Decision Processes*, 112, 126–139. <https://doi.org/10.1016/j.obhdp.2010.02.004>
- Parkinson, B. (2011). How social is the social psychology of emotion? *British Journal of Social Psychology*, 50, 405–413. <https://doi.org/10.1111/j.2044-8309.2011.02034.x>
- Parkinson, B., & Manstead, A. S. R. (1993). Making sense of emotion in stories and social life. *Cognition & Emotion*, 7, 295–323. <https://doi.org/10.1080/02699939308409191>
- Peters, K., & Kashima, Y. (2007). From social talk to social action: Shaping the social triad with emotion sharing. *Journal of Personality and Social Psychology*, 93, 780–797. <https://doi.org/10.1037/0022-3514.93.5.780>
- Pfeiler, T. M., Wenzel, M., Weber, H., & Kubiak, T. (2017). The power of status: What determines one's reactions to anger in a social situation. *Personality and Individual Differences*, 114, 61–68. <https://doi.org/10.1016/j.paid.2017.03.057>
- Rimé, B. (2009). Emotion elicits the social sharing of emotion: Theory and empirical review. *Emotion Review*, 1, 60–85. <https://doi.org/10.1177/1754073908097189>

- Rimé, B., & Zech, E. (2001). The social sharing of emotion: Interpersonal and collective dimensions. *Boletín de Psicología, 70*, 97–108. Retrieved from <http://hdl.handle.net/2078.1/92733>
- Sinaceur, M., & Tiedens, L. Z. (2006). Get mad and get more than even: When and why anger expression is effective in negotiations. *Journal of Experimental Social Psychology, 42*, 314–322. <https://doi.org/10.1016/j.jesp.2005.05.002>
- Sturm, R. E., & Antonakis, J. (2014). Interpersonal power: A review, critique, and research agenda. *Journal of Management, 41*, 136–163. <https://doi.org/10.1177/0149206314555769>
- Taylor, T., & Risman, B. J. (2006). Doing deference or speaking up: Deconstructing the experience and expression of anger. *Race, Gender & Class, 13*, 60–80.
- Tiedens, L. Z., Ellsworth, P. C., & Mesquita, B. (2000). Sentimental stereotypes: Emotional expectations for high- and low-Status group members. *Personality and Social Psychology Bulletin, 26*, 560–575. <https://doi.org/10.1177/0146167200267004>
- Timmers, M., Fischer, A. H., & Manstead, A. S. R. (1998). Gender differences in motives for regulating emotions. *Personality and Social Psychology Bulletin, 9*, 974–985. <https://doi.org/10.1177/0146167298249005>
- Van der Schalk, J., Kuppens, T., Bruder, M., & Manstead, A. S. R. (2015). The social power of regret: The effect of social appraisal and anticipated emotions on fair and unfair allocations in resource dilemmas. *Journal of Experimental Psychology: General, 1*, 151–157. <https://doi.org/10.1037/xge0000036>
- Van Doorn, E. A., Heerdink, M. W., & Van Kleef, G. A. (2012). Emotion and the construal of social situations: Inferences of cooperation versus competition from expressions of anger, happiness, and disappointment. *Cognition & Emotion, 26*, 442–461. <https://doi.org/10.1080/02699931.2011.648174>
- 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. <https://doi.org/10.1111/j.1467-8721.2009.01633.x>
- Van Kleef, G. A. (2016). *The interpersonal dynamics of emotion: Toward an integrative theory of emotions as social information*. Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/cbo9781107261396>
- Van Kleef, G. A., & Côté, S. (2007). Expressing anger in conflict: When it helps and when it hurts. *Journal of Applied Psychology, 92*, 1557–1569. <https://doi.org/10.1037/0021-9010.92.6.1557>
- Van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004). The interpersonal effects of emotions in negotiations: A motivated information processing approach. *Journal of Personality and Social Psychology, 87*, 510–528. <https://doi.org/10.1037/0022-3514.87.4.510>
- 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. *Advances in Experimental Social Psychology, 42*, 45–96. [https://doi.org/10.1016/s0065-2601\(10\)42002-x](https://doi.org/10.1016/s0065-2601(10)42002-x)
- Van Kleef, G. A., Homan, A. C., Finkenauer, C., Gündemir, S., & Stamkou, E. (2011). Breaking the rules to rise to power: How norm violators gain power in the eyes of others. *Social Psychological and Personality Science, 2*, 500–507. <https://doi.org/10.1177/1948550611398416>
- Van Kleef, G. A., Oveis, C., Van Der Löwe, I., Luokogan, A., Goetz, J., & Keltner, D. (2008). Power, distress, and compassion: Turning a blind eye to the suffering of others. *Psychological Science, 19*, 1315–1322. <https://doi.org/10.1111/j.1467-9280.2008.02241.x>
- Van Kleef, G. A., Van Doorn, E. A., Heerdink, M. W., & Koning, L. F. (2011). Emotion is for influence. *European Review of Social Psychology, 22*, 114–163. <https://doi.org/10.1080/10463283.2011.627192>
- Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science, 322*, 115–117. <https://doi.org/10.1126/science.1159845>
- Yzerbyt, V., Kuppens, T., & Mathieu, B. (2015). When talking makes you feel like a group: The emergence of group-based emotions. *Cognition and Emotion, 1*, 33–50. <https://doi.org/10.1080/02699931.2015.1045454>