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When does anger boost status? ☆, ☆ ☆

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ABSTRACT

A substantial literature asserts that anger expressions boost status. Across seven studies ($N = 4027$), we demonstrate that this assertion is often wrong. Rather than boosting status, many anger expressions predictably diminish status. We find that the intensity of expressed anger profoundly influences social perceptions and status conferral. Compared to mildly or moderately angry individuals, extremely angry people are perceived to be less competent and warm, and are thus accorded less status. We also contrast expressions of anger with expressions of sadness across different levels of intensity. At low levels of intensity anger expressions boost status conferral compared to sadness expressions and a neutral control condition, but at high levels of intensity anger expressions harm status conferral compared to sadness expressions and a neutral control condition. Taken together, our findings reveal that the relationship between expressed emotion and status is far more nuanced than prior work has assumed, and that the magnitude of an emotion can substantively moderate its effects.

“People expressing anger are seen as dominant, strong, competent, and smart”

-Tiedens (2001, p. 87)

Anger powerfully influences social interactions. Not only does anger influence one's own intrapersonal cognition and behavior (e.g., Bodenhausen, Sheppard, & Kramer, 1994; Dunn & Schweitzer, 2005; Lerner & Keltner, 2001; Tiedens & Linton, 2001), but anger also has profound interpersonal effects on others' social cognition and behavior (e.g., Brescoll & Uhlmann, 2008; Gibson & Callister, 2010; Olekalns & Druckman, 2014; Tiedens, 2001; Van Kleef, De Dreu, & Manstead, 2004). Building on emotion research conducted by leading scholars (Clark, Pataki, & Carver, 1996; Gallois, 1993; Labott, Martin, Eason, & Berkey, 1991), Tiedens (2001) summarizes our understanding of anger expressions in our opening quote. The association between anger expressions and both dominance and competence has led scholars to conclude that expressing anger increases status.

The link between anger expressions and status is important (Brescoll & Uhlmann, 2008; Tiedens, 2001; Tiedens, Ellsworth, & Mesquita,

2000). People with high status enjoy significant benefits such as social influence, power, and greater access to resources (e.g., Anderson, Hildreth, & Howland, 2015; Anderson, Kraus, Galinsky, & Keltner, 2012; Ellis, 1994; Magee & Galinsky, 2008; Marmot, 2004). It is not surprising, therefore, that people work hard to engage in activities and behaviors – such as expressing anger – that help them attain status (e.g., Anderson & Kilduff, 2009; Flynn, Reagans, Amanatullah, & Ames, 2006; Hardy & van Vugt, 2006; Willer, 2009).

Claims about the interpersonal influence of anger, however, have largely failed to consider the moderating role of the intensity of the emotion expression.¹ Instead, prior studies have focused on the interpersonal consequences of a single level of expressed anger that is either *low* or *moderate*, without considering how emotion intensity might matter. For example, scenario studies have described a target's anger by stating that the target “feels angry” (Tiedens et al., 2000, p. 568), other studies have used video stimuli depicting a job candidate who stated that he had felt angry about a negative event (Brescoll & Uhlmann, 2008; Tiedens, 2001) or static photographs displaying moderately angry targets (e.g., Hareli, Shomrat, & Hess, 2009), and negotiation

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¹ We use the term “intensity” to refer to a specific emotion expressed at different magnitudes, with higher levels of intensity indicating that the emotion is expressed more strongly. An emerging literature has used the terms “intensity” and “magnitude” interchangeably (see Barasch, Levine, & Schweitzer, 2016; Frijda, Ortony, Sonnemans, & Clore, 1992; Hess, Blairy, & Kleck, 2000).

studies have used confederates who make statements such as “This is really getting on my nerves” (Van Kleef et al., 2004, p. 61; see also Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2012, and Wang, Northcraft, & Van Kleef, 2012). In these studies, researchers have failed to consider how the intensity of the anger expression might influence the consequences of those expressions (for notable exceptions, see Adam & Brett, 2018; Hess et al., 2000). By failing to consider how intensity might moderate the interpersonal effects of anger expressions, most prior work has drawn broad conclusions from a very limited range of stimuli.

In this article, we examine the consequences of expressed anger across different levels of intensity, and across a variety of contexts. We show that the relationship between anger and status conferral is very different from what prior work has asserted and assumed. Our investigation is both theoretically and practically important. We challenge the assertion that anger expressions confer status, and we identify a critical dimension of emotional expression and experience that prior scholarship has largely ignored. We are also the first to show that perceptions of both competence and warmth mediate the relationship between anger expressions and status conferral. Consistent with a growing body of research that describes inverted-U shape relationships between positive traits and experiences (e.g., Ames & Flynn, 2007; Grant & Schwartz, 2011; Gruber, Mauss, & Tamir, 2011), we show that expressing anger at high levels of intensity can harm status conferral.

1. Anger

Anger is a negative emotion that is characterized by high physiological arousal and is typically triggered by a negative outcome caused by another person (e.g., Lazarus, 1991; Ortony, Clore, & Collins, 1988; Scherer, 1999; Smith & Ellsworth, 1985). Angry individuals often feel certainty, a sense of control, and a desire to change the situation. Consequently, they often confront the person responsible for causing them harm (Frijda, Kuipers, & ter Schure, 1989; Smith & Ellsworth, 1985).

Feelings of anger are typically accompanied by facial expressions that include lowered eyebrows and thinned lips (Ekman, 1993; Ekman & Friesen, 1971), cues that are readily observable and recognizable by others. Facial expressions of anger share common characteristics with facial expressions of dominance (Ekman, 1993; Ekman & Friesen, 1971; Keating, 1985), and, as a result observers perceive angry people to be dominant (e.g., Cabral, Tavares, & de Almeida, 2016; Clark et al., 1996; Hess et al., 2000; Knutson, 1996). Prior work has also demonstrated that observers expect angry individuals to have both the power and status to address the anger-eliciting event (Frijda, 1986; Hess, Adams, Reginald, & Kleck, 2005; Scherer, 1999; Tiedens et al., 2000).

In related work, scholars have asserted that individuals who express anger are *accorded* greater status (e.g., Brescoll & Uhlmann, 2008; Tiedens, 2001). For example, Tiedens (2001) found that a job candidate who expressed anger, rather than sadness, in reaction to a past negative workplace situation was accorded greater status in a new position. This effect was mediated by increased perceptions of competence: compared to sad individuals, angry individuals were perceived to be more competent and consequently accorded higher status.

Although past research has substantially advanced our understanding of the interpersonal effects of expressed anger, no prior work exploring the relationship between anger and status has considered anger expressed at *different levels of intensity*. Further, contrasts between emotions, such as anger and sadness, have similarly failed to consider how different levels of intensity of each emotion might alter the results of the contrast. In this article, we investigate how the intensity of an anger expression fundamentally qualifies the positive relationship between anger expressions and status that prior work has asserted.

2. Status, competence, and warmth

Status, the respect and influence accorded to an individual, is a defining feature of all social groups (Anderson, John, Keltner, & Krings, 2001; Anderson & Kilduff, 2009; Barkow, 1975; Berger, Cohen, & Zelditch Jr, 1972; Magee & Galinsky, 2008). Consistent with prior work, we refer to the process by which individuals gain status as *status conferral* (Blau, 1964; Tiedens, 2001). Status conferral often follows demonstrations of competence, which are associated with intelligence, confidence, resilience, and self-control (Anderson, Brion, Moore, & Kennedy, 2012; Anderson & Kilduff, 2009; Berger et al., 1972; Fiske, Cuddy, & Glick, 2007; Kennedy, Anderson, & Moore, 2013). Prior work has found that anger expressions, compared to expressions of sadness, influence perceptions of competence (Tiedens, 2001). We build on this work to consider how the intensity of anger expressions influences perceptions of competence and self-control.

A related stream of research has postulated that individuals can also attain status by engaging in behaviors that signal warmth (e.g., Anderson & Kilduff, 2009; Flynn et al., 2006; Hardy & van Vugt, 2006; Willer, 2009). Warmth encompasses traits such as friendliness and helpfulness (Fiske et al., 2007). Importantly, when individuals signal concern for the welfare of others in their group they are accorded greater status (Flynn et al., 2006; Hardy & van Vugt, 2006; Willer, 2009). That is, when actors demonstrate helpfulness and good intentions, observers become more receptive to conferring status and power to these individuals (Anderson & Kilduff, 2009). In our work, we investigate how both perceptions of competence and warmth influence the relationship between anger expressions and status conferral.²

3. High-intensity anger and perceptions of competence

We expect the intensity of an anger expression to impact perceptions of competence. Emotion expressions in social interactions are guided by display rules that determine the appropriateness of the expressions (Ekman & Friesen, 1969; Matsumoto, Yoo, Hirayama, & Petrova, 2005). For example, individuals are often encouraged to express positive rather than negative emotions (Grandey, 2000; Hochschild, 1983; Pugh, 2001; Rafaeli & Sutton, 1987). Similarly, display rules generally favor the expression of moderate rather than extreme emotions (Diefendorff & Greguras, 2009; Ekman & Friesen, 1969; Matsumoto et al., 2005), and this is particularly true for anger (Diefendorff & Greguras, 2009; Geddes & Callister, 2007; Gibson, Schweitzer, Callister, & Gray, 2009). When emotional displays violate normative display rules, they are deemed to be inappropriate and observers negatively evaluate the expresser (Szczurek, Monin, & Gross, 2012; Van Kleef, Wanders, Stamkou, & Homan, 2015).

To conform to display rules, people frequently regulate their emotions. The ability to use self-control and regulate one's emotional expressions is an important social skill (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Diefendorff & Greguras, 2009; Tice & Bratslavsky, 2000), and failing to regulate one's emotions is often penalized in social settings. For example, compared to those who effectively regulate their emotions by suppressing distress or expressing happiness, those who express authentic distress are perceived to be less

² We focus on perceptions of competence, as opposed to dominance – defined as the tendency to use intimidation and coercion to acquire status (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Cheng, Tracy, & Henrich, 2010; Wiltermuth, 2009; Wiltermuth, Tiedens, & Neale, 2015). In our investigation, we measure status conferral with both attitudinal and behavioral measures, such as leadership elections and hiring decisions, that reflect perceptions of competence and prestige, rather than dominance (e.g., Cheng et al., 2013; Maner & Case, 2016; Shariff & Tracy, 2009). In addition, our focus is on status *conferral*, or judgments about the level of status people should be granted, which is distinct from inferences about the level of status a person already has (which may be more closely associated with dominance).

competent, are trusted less, and are less likely to be hired and promoted (Levine & Wald, 2019; Wolf, Lee, Sah, & Brooks, 2016).

Whether or not an anger expression violates display norms is likely to depend on its intensity (Geddes & Callister, 2007). Individuals may violate display rules by failing to regulate the expression of high-intensity anger, and observers may draw negative inferences about the expresser as a result. That is, expressions of high-intensity anger may indicate that an individual is unaware of social norms or lacks self-control and the ability to regulate their emotions. Consequently, we predict that although expressions of low or moderate anger may signal competence, expressions of high-intensity anger will harm perceptions of competence.

Hypothesis 1. Individuals who express high levels of anger are perceived to be less competent than individuals who express low or moderate levels of anger.

4. High-intensity anger and perceptions of warmth

In addition to influencing perceptions of competence, we expect the intensity of an anger expression to influence perceptions of warmth. Angry people often behave competitively and engage in threatening and interpersonally harmful behaviors. In particular, angry people are more likely to blame (e.g., Keltner, Ellsworth, & Edwards, 1993; Quigley & Tedeschi, 1996; Smith & Ellsworth, 1985) and attack others (e.g., Berkowitz, 1990; Frijda et al., 1989; Harmon-Jones & Sigelman, 2001; Kassinove, Roth, Owens, & Fuller, 2002), focus on their own perspective (Yip & Schweitzer, 2019), and deceive others (Yip & Schweitzer, 2016). Consistent with these findings on the actual consequences of anger, prior work on the perception of anger has found that expressing anger harms perceptions of warmth compared to neutral or sad expressions (e.g., Knutson, 1996; Tiedens, 2001). We extend this prior work to consider how anger expressed at different levels of intensity influences perceptions of warmth.

Just as displays of different emotions influence judgments about a person's intentions (e.g., Harker & Keltner, 2001; Knutson, 1996), we expect that expressing the same emotion at different levels of intensity will also influence judgments about a person's intentions (cf. Barasch et al., 2016; Hess et al., 2000). Specifically, we predict that expressions of high-intensity anger will diminish perceptions of warmth compared to expressions of low-intensity anger, because high-intensity expressions of anger indicate self-serving motives and harmful intentions more powerfully than low-intensity expressions. In addition, individuals who express high-intensity anger may also signal low self-control. We postulate that perceptions of low self-control *strengthen* the relationship between anger and perceived lack of warmth, because a person who is perceived to have negative intentions is more threatening when this person lacks the self-control necessary to restrain those intentions.

Hypothesis 2. Individuals who express high levels of anger are perceived to be less warm than individuals who express low or moderate levels of anger.

5. High-intensity anger and status conferral

To the extent that high-intensity anger diminishes perceptions of both competence and warmth, we also expect high-intensity anger to harm status conferral. That is, building on the logic we developed in Hypotheses 1 and 2, we postulate that observers confer less status to individuals who express high levels of anger, and this relationship is driven by reduced perceptions of competence and warmth.

Hypothesis 3. Individuals who express high levels of anger are accorded less status than individuals who express low or moderate levels of anger, or no emotion.

Hypothesis 4. The relationship between anger intensity and status conferral is mediated by decreased perceptions of competence and warmth.

Although past research has hinted that the positive link between anger and status conferral could be undermined by perceptions of low warmth, this relationship has not been tested directly. Interestingly, Shariff and Tracy (2009) found that people were more likely to associate angry expressions with low-status words than high-status words (Study 5). The authors suggest that this may have occurred because anger undermines affiliation, despite signaling competence, but never tested this directly.

In other work, Tiedens (2001; Studies 2 and 4) found that anger expressions decreased perceptions of liking, but that this did not mediate the relationship between anger and status conferral. Quite possibly, the lack of mediation in these studies may reflect important distinctions between liking and warmth. Unlike liking, warmth reflects a specific concern for the welfare of others (Flynn et al., 2006; Hardy & van Vugt, 2006; Willer, 2009). Thus, in contrast to Tiedens' (2001) measure of liking (a composite of cold-warm and likeable-not likeable items; pages 89/91), we use a five-item measure of warmth that captures the target's intentions towards others (e.g., good-natured, helpful; Fiske et al., 2007).

We also expect high-intensity expressions of anger to be particularly detrimental for status conferral relative to expressions of other negative emotions, such as sadness—another negatively-valenced emotion that prior work has typically contrasted with anger. Although expressing any negative emotion at high levels may reflect a norm violation and a self-control failure, and thus reduce perceptions of *competence*, we do not expect expressions of other negative emotions at high levels to reduce perceptions of *warmth* to the same extent as expressions of anger at high levels do. Anger, unlike sadness, is associated with interpersonal harmful behaviors and hurts perceptions of warmth. In contrast, sadness is associated with situational control and helplessness (Smith & Ellsworth, 1985) rather than interpersonal harm. Because status conferral is influenced by judgments of both competence *and* warmth, we do not expect increases in the intensity of sadness expressions to harm status conferral as much as commensurate increases in the intensity of anger expressions. We test (and find support for) this proposition in Study 2.

6. Appropriateness of expressing anger in context

We also expect the appropriateness of an anger expression to moderate the relationship between anger intensity, perceptions of competence and warmth, and status conferral. Existing research has documented the importance of appropriateness in influencing social judgments of emotions. For example, Van Kleef and Côté (2007) demonstrated that negotiators demanded more from their opponent when the opponent's anger expression violated explicit display rules (i.e., "it was not allowed for participants to use pressure tactics or express negative emotions or threats during the negotiation"; p. 1563). That is, negotiators effectively penalized individuals who displayed inappropriate anger in this context.

Although high-intensity anger is often inappropriate, it may be warranted in some situations. For example, whereas displaying high-intensity anger following a minor infraction (e.g., breaking a stapler) may violate social norms, displaying high-intensity anger following a major infraction (e.g., breaking a laptop) may be considered appropriate. When high-intensity anger is appropriate, individuals have greater latitude with respect to exercising self-control and adhering to display rules. As such, failing to regulate high-intensity anger expressions should harm perceptions of competence less when high-intensity anger is appropriate.

In addition, when high-intensity anger is appropriate in a specific context, it may be perceived as less aggressive and threatening, and

thus less likely to signal low warmth. Because we expect perceptions of both competence and warmth to mediate the relationship between anger intensity and status conferral, we predict high-intensity anger to be less harmful for status conferral when expressing it is appropriate for the given situation.

Hypothesis 5. The appropriateness of the anger expression moderates the relationship between the intensity of an anger expression and perceptions of competence and warmth, and thus the relationship between the intensity of an anger expression and status conferral. When anger is more appropriate in a specific context, the harmful effects of expressing high levels of anger are attenuated.

In the current work, we manipulate anger appropriateness by altering the severity of the harm that triggers the anger expression: when severe harm is caused to the target, high-intensity anger expressions will be seen as more appropriate than when little harm is caused to the target.

7. Overview of the current research

Across seven studies, we investigate how the intensity of an anger expression influences interpersonal perceptions and status conferral. We use a variety of stimuli to manipulate the intensity of a target's anger expression and we use several different measures of status conferral.

In Study 1, we investigate the effects of anger intensity in a live interaction with a behavioral measure of status conferral. We find that expressing high-intensity anger harms perceptions of competence and status conferral. We replicate the results from Study 1 in Study S1 using controlled video stimuli.

In Study 2, we contrast the effects of expressing different levels of anger with the effects of expressing different levels of sadness. This allows us to isolate the effects of high-intensity anger from the effects of high-intensity negative emotions more broadly, and to test the claims of prior research that people who express anger are accorded greater status than those who express sadness (Tiedens, 2001). In addition, we compare anger and sadness to a control condition where no information is provided about the target's emotion expression. We show that the intensity of each emotion dramatically changes the result of the contrast. In Studies 3a-d and 4, we show that anger appropriateness moderates the effects of anger intensity on status conferral.

For each study, we decided our sample size in advance and we report all manipulations, measures, and data exclusions (if any). We pre-registered Studies 1, 2, and 4, and we provide the pre-registrations in the Appendix. The data, analysis code, and survey materials for all studies are available at this link: <https://osf.io/egtrb>.

8. Study 1

In Study 1, we examine the consequences of expressing different levels of anger intensity in an in-person, face-to-face setting in the laboratory. Participants interacted with a confederate actor who expressed either low- or high-intensity anger, and then decided how much status to confer to him. We used a behavioral measure of status conferral in this study.

8.1. Method

8.1.1. Participants

We recruited 168 participants (57% female; mean age = 27 years) to participate in this 30-minute study in exchange for \$5. We conducted the study over the course of four consecutive days, and we added an additional study day to reach the pre-registered minimum target sample size of 150 participants. Each laboratory session included two confederate actors and up to 4 regular study participants. We aimed to recruit 4 participants per laboratory session, though the actual number

of participants in each session depended on the number of people who showed up for that particular time slot.³ Across all sessions, the median number of participants per group was 4, and the average number of participants was 3.5. In total, we conducted 52 group sessions.

8.1.2. Confederates

We recruited two professional male actors to act as confederates in each laboratory session. Thus, each laboratory session consisted of up to 4 regular study participants plus the two actors whom we paid to be confederates in this study. The actors were blind to the study hypotheses. During the laboratory session, the actors acted out a short scene that involved one of the actors getting angry at the other actor. To enable this scene, we had participants and the actors complete a beverage tasting study during which one of the actors spilled their beverage on the other actor's phone. In reaction to the spill, the other actor expressed low or high anger. We describe the anger expressions that the actors displayed in detail below.

8.1.3. Procedure

Each laboratory session consisted of three parts: role assignments and introductions, a beverage tasting study (which was a fake study to enable our anger manipulation), and a leadership study (which contained our dependent measures). We presented the beverage tasting study and the leadership study as unrelated studies that were combined within a single experimental session for convenience.

Upon entering the laboratory, a research assistant assigned each participant an ID number by giving each participant a card with a number on it. The two confederates were always assigned numbers 1 and 2. The research assistant gave card number 1 to the confederate who was assigned to express anger during a given laboratory session (the 'Angry Confederate') and card number 2 to the confederate who was assigned to spill the beverage (the 'Spilling Confederate'). Participants were randomly assigned to the other numbers. The research assistant administering the study (who was also blind to the study hypotheses) then instructed participants to sit around a table, at the seat labeled with their corresponding number card (see picture of the laboratory session setup in Online Supplement S.1.1). The research assistant informed participants that they would complete two different studies as part of the laboratory session. Before starting the studies, we asked participants to introduce themselves to the group by stating their name and their favorite restaurant in the city. The purpose of these introductions was to make participants feel comfortable in the group setting and to make speaking up seem more natural, so that the anger reaction was not the first time somebody spoke during the session. Each confederate stated the same information (name and favorite restaurant) in every session.

Participants then started the first study: a beverage tasting study. The sole purpose of this study was to provide a context for the anger-intensity manipulation. We did not analyze any data obtained from this study. For the beverage tasting study, participants had two see-through plastic cups in front of them labeled 'A' and 'B' containing roughly one inch of brown soda (both cups contained Coca-Cola). We then asked participants to taste both beverages and to rate them on a survey. Just over one minute into the beverage tasting task, the Spilling Confederate "accidentally" knocked over one of his plastic cups, such that the liquid in the cup spilled onto the cell phone of the Angry Confederate, which he had placed on the table at the start of the study. The cell phone was a deactivated LG phone that we dried and reused throughout the study.

Following the beverage spill, the target (the Angry Confederate) reacted with anger towards the Spilling Confederate. We randomly

³ When > 4 participants showed up for a lab session (which occasionally happened because we over-recruited), we paid and released those additional participants. When < 4 participants showed up, we ran the session with a reduced group size.

assigned participants at the session level to one of two experimental conditions: the target either reacted with low anger or high anger. We counterbalanced the experimental conditions (low vs. high anger) and the roles that the two confederates played (Angry Confederate and Spilling Confederate) based on a pre-determined and pre-registered schedule.

8.1.4. Manipulating anger at low vs. high levels of intensity in the laboratory

We took several steps to ensure that the low- and high-intensity expressions of anger in this study were both credible and recognizable. First, we conducted an extensive practice session with the actors. We instructed the actors to portray either “low” or “high” anger as they delivered the following dialogue after the spill:

Angry Confederate: Oh come on man! You spilled on my phone!
Spilling Confederate: I'm sorry. It was an accident.
Angry Confederate: Unbelievable. (low anger)/What's your problem? (high anger)

Since both verbal and non-verbal cues determine an anger expression, the actors used facial expressions, bodily movements, and vocal cues (e.g., Banse & Scherer, 1996; Ekman, 1993; Ekman & Friesen, 1971; Wallbott, 1998) to distinguish their expressions of low and high anger. For example, to display high anger, the actors used intensively angry facial expressions, such as lowered eyebrows and gaze directed at the Spilling Confederate (e.g., Ekman, 1993; Ekman & Friesen, 1971), made lateralized hand/arm movements (Wallbott, 1998), and raised their voice (e.g., Banse & Scherer, 1996). To display low anger, the actors' angry facial expressions, bodily movements, and vocal cues were tempered.

The actors extensively rehearsed the beverage spilling scene and their anger expressions in order to standardize the manipulations of low versus high anger as much as possible. We instructed them to stick to these expressions as closely as possible during the laboratory sessions without compromising authenticity.

Furthermore, during the laboratory study, we recorded the actors through a disguised camera. We include sample videos here: <https://tinyurl.com/MMLabRecordings>. We tested the effectiveness of our anger-intensity manipulation using these sample videos. We asked 202 participants on MTurk, who were blind to the purpose of the study and the conditions, to rate the level of anger displayed by the target. Participants first watched the video of the interaction in the laboratory. Then, participants were presented with a picture of the target and were asked, “How much anger did the person display during the interaction that you observed in the video?” (slider scale anchored at 0 = “no anger” and 100 = “a lot of anger”). The ratings were significantly lower in the low-anger condition ($M = 35.63$, $SD = 24.50$) than in the high-anger condition ($M = 65.51$, $SD = 19.45$), $b = 29.88$, $SE = 3.11$, $t(200) = 9.61$, $p < .001$.

8.1.5. Dependent measures

After participants completed the beverage tasting study, we informed them that they would begin the second study: the leadership survey. This survey contained our dependent measures, a group leader election task and measures of perceived competence. We focused on these two measures in this study, as this study was conducted in the laboratory and we wanted to keep it to a reasonable length.

8.1.5.1. Status conferral: leadership election. We measured status conferral using a group leader election task that we adapted from Halevy, Chou, Cohen, and Livingston (2012). Participants learned that they would engage in a group task with the other study participants at the end of the laboratory session. We informed participants that their group would compete against other laboratory session groups from the same day and that each member of the winning group would earn a \$5

bonus. They then learned that one person in each group would act as a group leader, and that the group leader would be determined by the average rating they received from the group. Participants indicated how much they would like to have each of the other participants in their laboratory session as their group leader (7-point scale anchored at 1 “not at all” and 7 “very much”). We include the complete set of instructions for the group leader election in Appendix C.

8.1.5.2. Competence. Participants also rated each of the other participants in their laboratory session on two traits, competent and capable, using a 7-point scale (anchored at 1 “not at all” and 7 “extremely”). We averaged responses to these two items to measure competence ($r = 0.83$).

We also asked participants to report their age and gender, and whether or not they knew any of the other participants in their laboratory session. In addition, to gauge suspicion, we asked participants to describe the study in their own words.

After participants completed the leadership survey, we sent them to individual cubicles with computers to complete the group task. The group task consisted of a short math quiz and the sole purpose of this task was to maintain credibility. We did not analyze the data of the group task, except to deliver bonus payments to the best performing group of each day (we excluded the confederates' performance for this analysis). Finally, in a second attempt to gauge suspicion, we asked participants to describe in an open-ended response what informed their ratings of the other participants in their laboratory session.⁴

8.2. Results

8.2.1. Main analyses

Each participant rated each of the other participants in their laboratory session, but, as pre-registered, our analyses focus on ratings of the Angry Confederate. We regressed each of the dependent measures on anger intensity (1 = high anger; 0 = low anger). In our analyses, we included fixed effects for confederate role and research assistant, and clustered standard errors by laboratory session to correct for the non-independence of the observations.⁵

Fig. 1 depicts the results for the leadership election. Supporting Hypothesis 3, participants were less likely to elect the target as a group leader when he expressed high anger ($M = 1.92$, $SD = 1.40$) than when he expressed low anger ($M = 2.52$, $SD = 1.58$), $b = -0.59$, $SE = 0.20$, $t(51) = -2.89$, $p = .006$. In addition and supporting Hypothesis 1, participants rated the target as less competent when he expressed high anger ($M = 3.23$, $SD = 1.39$) than when he expressed low anger ($M = 3.85$, $SD = 1.43$), $b = -0.61$, $SE = 0.22$, $t(51) = -2.74$, $p = .008$.

8.2.2. Mediation analysis

To test whether perceived competence mediates the effect of anger intensity on status conferral (Hypothesis 4), we conducted a bootstrap mediation analysis with 10,000 samples using the sgmediation package in Stata. This analysis revealed that competence significantly mediated

⁴ We coded participants' responses to our two suspicion check questions. We flagged a participant as suspicious if they reported any level of suspicion in either question (e.g., “I don't know if it was staged or not”). All our main results replicate ($ps < .05$) when we drop these suspicious participants. We provide more details on these analyses in the Online Supplement (see Online Supplement 4).

⁵ Our final analyses differed from what we pre-registered, as we mistakenly said that we would include fixed effects for session and cluster standard errors by confederate. Instead, we included fixed effects for confederate role, and clustered standard errors by session. In our final analyses, we also included fixed effects for research assistant, since lab logistics made it necessary to use three different research assistants (who introduced the studies and guided participants through their exercise) throughout the course of the study.

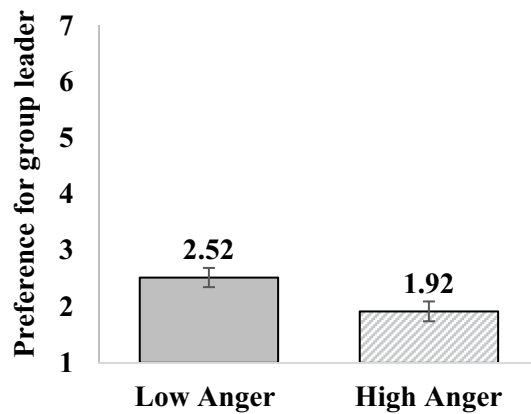


Fig. 1. Results for the Leadership Election in Study 1. Error bars reflect ± 1 SE.

the relationship between anger intensity and status conferral in the group leader election; the confidence interval did not include zero (indirect effect of competence = -0.37 ; 95% $CI = [-0.66; -0.11]$). Specifically, as anger intensity increased, perceived competence decreased ($a = -0.62$, $SE = 0.22$, $p = .005$), and the more perceived competence decreased, the less likely the target was to be elected as the group leader ($b = 0.61$, $SE = 0.07$; $p < .001$). After including perceived competence in the model, the effect of anger intensity on the group leader election decreased from $c = -0.60$, $SE = 0.23$, $p = .010$ to $c' = -0.23$, $SE = 0.19$, $p = .242$, suggesting full mediation.⁶

8.3. Discussion

The results from Study 1 demonstrate that expressing high-intensity anger can be harmful for how an individual is perceived in social settings. Participants were less likely to elect an individual to be the group leader when he expressed high anger than when he expressed low anger. Perceptions of competence mediated this relationship. Importantly, in this study, we document these effects within a face-to-face interaction, with expressions of anger performed by trained professionals, and using an incentive-compatible measure of status conferral.

Although the face-to-face interactions we used in Study 1 afforded high realism and external validity, each group's experience with the confederates may have differed slightly, thereby diminishing the level of experimental control. We therefore conducted a replication of Study 1 using more controlled stimuli, namely videos of interactions similar to the ones that happened in Study 1 in the laboratory (Study S1, see Online Supplement 5 for all details). The results from Study S1 confirm our findings from Study 1.

9. Study 2

In Study 2, we extend our investigation by demonstrating that our results are unique to anger and do not generalize to another negative emotion. Specifically, we explore how emotion intensity influences reactions to both anger and sadness. This enables us to test a key claim in prior research: that people confer more status to targets who express anger than to targets who express sadness (Tiedens, 2001). We also compare the effects of these emotion expressions to a no-emotion-information control condition.

In Study 2, we also include an additional measure of status conferral, a hypothetical hiring decision that has previously been used in

⁶ The results of our mediation analysis are robust to including fixed effects for confederate and research assistant (indirect effect of competence = -0.37 ; 95% $CI = [-0.65; -0.11]$).

the literature on anger and status conferral (Tiedens, 2001), to test the robustness of our effects. Moreover, we test Hypotheses 2 and 4 by examining whether perceived warmth functions as an additional mechanism by which anger intensity affects status conferral.

In this study, we use highly controlled stimuli to manipulate emotion intensity: prepopulated surveys (Barasch et al., 2016; Barasch, Levine, Berman, & Small, 2014). Specifically, we provided participants with a screenshot of a survey that a fictitious former participant (our study target) had completed. The survey conveyed information about the target's emotion using Likert scales depicting the specific level of anger (or sadness) that the target had experienced in response to a specific situation. This allows us to explicitly define discrete emotion levels without any variation in interpretation that might occur in person or in video stimuli. In addition, the pre-populated survey included information about the target's *felt* anger (or sadness). It is possible that in our prior studies, participants believed that the confederates *experienced* the same level of anger in both conditions, but that the moderately angry confederate simply had better emotional control. By including information about the target's *felt* emotion, we rule out this possibility and ensure that participants understood that the targets *experienced* different levels of anger/sadness across conditions. Importantly, using the pre-populated surveys also allows us to manipulate additional levels of emotion intensity, and thus we manipulate anger and sadness at five different levels in this study.

9.1. Method

9.1.1. Participants

We conducted Study 2 using U.S. participants from Amazon's Mechanical Turk (MTurk). Participants received \$0.70 in exchange for participating in this 7-minute study. We decided in advance to recruit 550 participants and allowed only those participants who passed an attention check embedded at the beginning of the survey to participate. Our analyses included data from all participants who responded to at least one of our dependent measures. This left us with a final sample size of 554 participants (51% female, mean age = 37 years).⁷

9.1.2. Procedure

Participants in this study viewed a survey that was seemingly filled out by a previous study participant. That is, we informed participants that we had collected survey responses from people in a previous study, and that they would view one target's response. In reality, we pre-populated surveys to include fictitious targets' responses to three demographic questions, as well as their open-ended response to a question asking them to describe a situation in which things did not go so well in a previous job (see Fig. 2). In each condition, the target in the pre-populated survey was a 28-year old male from Chicago and his open-ended response described a situation in which a co-worker had accidentally spilled coffee on his clothing. We included typos in this open-ended response to enhance credibility.

9.1.3. Design

We randomly assigned participants to one of 11 conditions. These conditions reflect a 2 (emotion type: anger vs. sadness) \times 5 (emotion intensity: level 1–5) design plus a no-emotion-information control condition. Participants in the no-emotion-information condition received only the target's responses to the demographic and open-ended questions, but no additional information about the target's emotional reaction to the event. In contrast, participants in the anger and sadness conditions saw the target's responses to how much anger (or sadness) the target had felt and expressed in reaction to the negative workplace situation that he described in the open-ended response (i.e., that a co-

⁷ We report details on participant attrition (Zhou & Fishbach, 2016) across our studies in the Online Supplement (S.2.1).

item on a 7-point scale (anchored at 1 “not at all” and 7 “extremely”). We randomized the order in which we presented the items.

9.1.5. Manipulation check

We also included two manipulation check questions for the anger and sadness conditions. Specifically, we asked participants to move two sliders to answer, ‘How angry (sad) did the person who filled out the survey feel in response to the situation described?’ (anchored at 0 “not at all angry (sad)” and 100 “extremely angry (sad)”), and ‘How much anger (sadness) did the person display to people in response to the situation described?’ (anchored at 0 “no anger (sadness)” and 100 “a lot of anger (sadness)”). We collapsed the two anger manipulation check questions into a single measure of perceived anger ($r = 0.98$), and the two sadness manipulation check questions into a single measure of perceived sadness ($r = 0.95$).

9.2. Results

9.2.1. Analyses of the manipulation checks

To analyze the manipulation checks, we split the data by emotion type to examine the simple linear effects of anger and sadness intensity separately. Table 1 displays the means at each level of anger/sadness. In line with our manipulation, participants rated the target's anger higher, the higher the manipulated anger level, $b = 22.78$, $SE = 0.53$, $t(252) = 43.29$, $p < .001$, and they also rated the target's sadness higher, the higher the manipulated sadness level, $b = 20.29$, $SE = 0.75$, $t(246) = 27.12$, $p < .001$.

9.2.2. Main analyses

As pre-registered, we omitted the no-emotion-information control condition for our main analysis, resulting in $N = 504$. We regressed each of the dependent measures on (a) the emotion type condition ($+0.5 = \text{anger}$; $-0.5 = \text{sadness}$), (b) the emotion intensity condition (levels 1-5; mean-centered), and (c) their interaction.⁸ Fig. 3 graphically depicts the results for the leadership election, Table 2 shows the regression results for all dependent measures, and Table 3 shows all means and standard deviations.

For the leadership election (Fig. 3), there was a significant main effect of emotion intensity: Participants were less likely to confer status to the target, the higher the target's emotion intensity ($p < .001$). A significant interaction between emotion intensity and emotion type ($p = .001$) revealed that the effect of emotion intensity was larger for anger than for sadness. That is, increases in anger intensity harmed the leadership election score more than commensurate increases in sadness intensity. The results for perceived warmth resembled those for the leadership election task (see Table 2). For the hiring decision and competence, there was no significant interaction between emotion magnitude and emotion type ($ps \geq .119$).

9.2.3. Planned contrasts

To determine at which level anger confers more/less status than sadness and no emotion information, we conducted a series of pre-registered, planned contrasts between (a) anger at each level of intensity and the no-emotion-information control condition and (b) anger and sadness at each level of intensity.⁹ Fig. 3 depicts the results for the leadership election, and

⁸ For Studies 2 and 4, we did not specify in the pre-registration that we would mean center the anger intensity variable. However, this is necessary in order to interpret the results. In addition, in Study 2, we pre-registered that we would code the emotion variable as 1 and 0, but we contrast-coded this variable instead. We report the results using dummy coding (1 = anger; 0 = sadness) in the Supplement. The significance of our results does not change, except that the p-value for the main effect of emotion intensity on perceptions of warmth becomes $p = .008$ (see Table S3).

⁹ We report the results from additional planned contrasts between each level of sadness and the no-emotion-information control condition in the Online

Table 1
Manipulation Check Results for Each Level of Anger/Sadness in Study 2.

	Emotion Level				
	1	2	3	4	5
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Anger	4.28 (15.25)	22.31 (9.07)	49.93 (7.65)	68.87 (11.36)	94.95 (13.73)
Sadness	11.31 (25.72)	32.51 (19.55)	50.64 (8.82)	70.12 (9.09)	94.07 (13.15)

Table 3 shows the results for all dependent measures.

We find that anger has different effects at low versus high levels of intensity. For example, compared to no emotion information, anger increased the target's prospect to be elected as the group leader when expressed at low levels (levels 1 and 2; $ps \leq .003$), but harmed the target's prospect to be elected as the group leader when expressed at high levels (level 5; $p < .001$; see Fig. 3). Thus, whether or not anger expressions boost or harm status conferral depends on the level of intensity at which it is expressed.

Similarly, we find that the comparison between anger and sadness also hinges on the level of intensity of the emotion expression. For example, at level 2, consistent with prior work (Tiedens, 2001), anger increased the target's prospect to be elected as the group leader compared to sadness ($p = .005$). However, at level 5, inconsistent with prior work, anger harmed the target's prospect to be elected as the group leader compared to sadness ($p = .005$; see Fig. 3). We find a similar pattern of results for our other dependent measures (see Table 3).

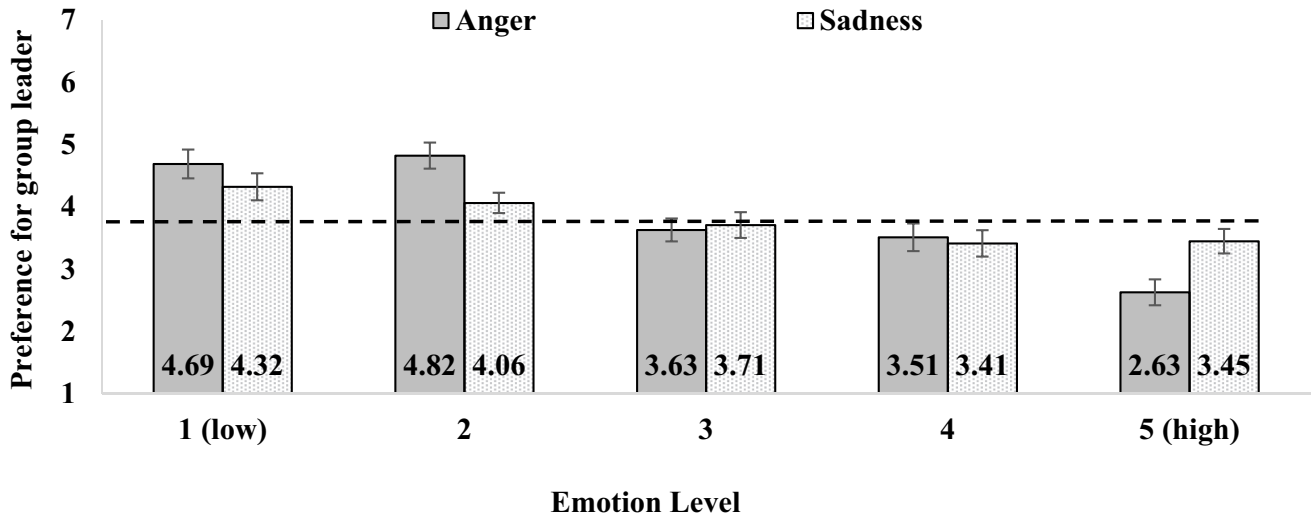
9.2.4. Mediation analyses

We next tested perceptions of competence and warmth as potential mediators for the effect of anger intensity on status conferral. We ran a moderated mediation model with 10,000 samples (SPSS PROCESS Macro, Model 7, Hayes, 2013) using the leadership election as the dependent variable, emotion intensity as the independent variable, emotion type (anger vs sadness) as the moderator, and competence and warmth as the mediators.¹⁰

For competence, there is no evidence of moderated mediation (index of moderated mediation: 0.001 [-0.08 ; 0.08]). For both anger (conditional indirect effect of competence = -0.11 , 95% $CI = [-0.18$; $-0.05]$) and sadness (conditional indirect effect of competence = -0.11 , 95% $CI = [-0.18$; $-0.05]$), targets who expressed high levels of emotion intensity were perceived to be less competent, which lead to lower status conferral in the leadership election. However, for warmth, we did find evidence of moderated mediation (index of moderated mediation: -0.24 [-0.35 ; $-0.15]$). Again, for both anger and sadness, targets who expressed high levels of emotion intensity were perceived to be less warm, which lead to lower status conferral in the leadership election. But that effect was stronger for anger (conditional indirect effect of warmth = -0.30 , 95% $CI = [-0.42$; $-0.19]$) than for sadness (conditional indirect effect of warmth = -0.07 , 95% $CI = [-0.11$; $-0.01]$). Thus, although perceived competence did not play a qualitatively different role in mediating the effects of emotion intensity on status conferral, perceived warmth mediated more strongly for anger than for sadness.

(footnote continued)
Supplement (S.2.2).

¹⁰ We include the results of an additional mediation analysis on our second measure of status conferral, the hypothetical hiring decision, in Table S4 in the Online Supplement. This second moderated mediation analysis showed similar effects.



Emotion Level:	1 (low)	2	3	4	5 (high)
Anger vs. No Emotion Information	**	***	ns	ns	***
Anger vs. Sadness	ns	**	ns	ns	**

Fig. 3. Results for the Leadership Election in Study 2. The higher the target's emotion intensity, the less likely participants are to elect the target as the group leader ($p < .001$). The effect of emotion intensity is larger for anger than for sadness. The dash-dotted black line represents the mean rating when no emotion information is provided ($M = 3.76$). Participants prefer individuals for whom no emotion information is provided to individuals who express high anger (level 5). Participants prefer individuals for whom no emotion information is provided to individuals who express low anger (levels 1 and 2). Participants prefer anger expressions to sadness expressions at level 2, but this effect flips at level 5. Error bars reflect ± 1 SE. *** $p \leq .001$, ** $p < .01$, * $p < .05$.

Table 2
Regression Results in Study 2.

	Main Effect of Emotion Intensity	Main Effect of Anger (vs. Sadness)	Interaction Between Emotion Intensity and Type
Status Conferral: Leadership Election			
All Data	$b = -0.39, SE = 0.05, p < .001$	$b = 0.07, SE = 0.13, p = .610$	$b = -0.30, SE = 0.09, p = .001$
Anger	$b = -0.54, SE = 0.07, p < .001$		
Sadness	$b = -0.24, SE = 0.06, p < .001$		
Status Conferral: Hiring Decision			
All Data	$b = -0.21, SE = 0.03, p < .001$	$b = 0.01, SE = 0.09, p = .935$	$b = -0.10, SE = 0.07, p = .119$
Anger	$b = -0.26, SE = 0.05, p < .001$		
Sadness	$b = -0.15, SE = 0.05, p = .001$		
Perceived Competence			
All Data	$b = -0.19, SE = 0.03, p < .001$	$b = 0.18, SE = 0.10, p = .067$	$b = 0.003, SE = 0.07, p = .971$
Anger	$b = -0.19, SE = 0.05, p < .001$		
Sadness	$b = -0.19, SE = 0.05, p < .001$		
Perceived Warmth			
All Data	$b = -0.41, SE = 0.03, p < .001$	$b = -0.29, SE = 0.10, p = .003$	$b = -0.56, SE = 0.07, p < .001$
Anger	$b = -0.69, SE = 0.05, p < .001$		
Sadness	$b = -0.13, SE = 0.05, p = .005$		

Notes. The results come from regressing the dependent measures on (a) the emotion intensity condition (levels 1-5; mean-centered), (b) the emotion type condition (+0.5 = anger; -0.5 = sadness), and (c) their interaction.

9.3. Discussion

In Study 2, we use five different levels of anger intensity and find that the higher the target's anger level, the less likely people are to

confer status to the target, and the less competent and warm the target is perceived to be. Importantly, the findings also reveal that extreme anger (level 5) is actually harmful for status conferral and perceptions of competence and warmth, compared to when there is no information

Table 3
Planned Contrasts at Each Level of Anger Intensity in Study 2.

No Emotion Information		Anger		Sadness		Anger vs. No Emotion Information	Anger vs. Sadness
<i>M (SD)</i>	<i>Level</i>	<i>M (SD)</i>	<i>Level</i>	<i>M (SD)</i>			
Status Conferral: Leadership Election							
3.76 (1.44)	1	4.69 (1.66)	1	4.32 (1.53)	$t(99) = 3.00, p = .003$	$t(99) = 1.15, p = .251$	
	2	4.82 (1.48)	2	4.06 (1.14)	$t(98) = 3.63, p < .001$	$t(97) = 2.85, p = .005$	
	3	3.63 (1.31)	3	3.71 (1.47)	$t(99) = -0.48, p = .629$	$t(100) = -0.28, p = .777$	
	4	3.51 (1.58)	4	3.41 (1.51)	$t(99) = -0.83, p = .407$	$t(100) = 0.32, p = .750$	
	5	2.63 (1.48)	5	3.45 (1.35)	$t(99) = -3.90, p < .001$	$t(96) = -2.85, p = .005$	
Status Conferral: Hiring Decision							
4.09 (1.09)	1	4.50 (1.12)	1	4.55 (1.15)	$t(99) = 1.91, p = .059$	$t(100) = -0.20, p = .845$	
	2	4.58 (1.13)	2	4.01 (0.72)	$t(98) = 2.21, p = .029$	$t(97) = 2.97, p = .004$	
	3	4.00 (0.97)	3	4.24 (1.03)	$t(99) = -0.42, p = .679$	$t(100) = -1.19, p = .237$	
	4	4.12 (1.05)	4	4.01 (1.12)	$t(99) = 0.18, p = .860$	$t(100) = 0.52, p = .602$	
	5	3.44 (1.10)	5	3.79 (1.04)	$t(99) = -2.95, p = .004$	$t(97) = -1.60, p = .113$	
Perceived Competence							
4.29 (1.16)	1	4.92 (1.27)	1	4.86 (1.15)	$t(99) = 2.59, p = .011$	$t(99) = 0.24, p = .811$	
	2	4.94 (1.07)	2	4.57 (1.01)	$t(98) = 2.92, p = .004$	$t(97) = 1.78, p = .078$	
	3	4.43 (1.06)	3	4.47 (0.97)	$t(99) = 0.63, p = .529$	$t(100) = -0.18, p = .861$	
	4	4.71 (0.91)	4	4.22 (1.15)	$t(99) = 2.02, p = .047$	$t(100) = 2.40, p = .018$	
	5	4.08 (1.15)	5	4.08 (1.08)	$t(99) = -0.91, p = .364$	$t(96) = 0.03, p = .980$	
Perceived Warmth							
4.24 (1.00)	1	5.50 (1.18)	1	4.76 (1.33)	$t(99) = 5.77, p < .001$	$t(99) = 2.97, p = .004$	
	2	5.35 (0.81)	2	4.73 (0.94)	$t(98) = 6.08, p < .001$	$t(97) = 3.53, p < .001$	
	3	3.88 (1.18)	3	4.67 (0.93)	$t(99) = -1.66, p = .100$	$t(100) = -3.77, p < .001$	
	4	3.67 (1.14)	4	4.28 (0.96)	$t(99) = -2.64, p = .010$	$t(100) = -2.89, p = .005$	
	5	2.87 (1.24)	5	4.32 (0.98)	$t(99) = -6.08, p < .001$	$t(96) = -6.36, p < .001$	

Notes. We manipulated anger (sadness) at 5 different levels of intensity (1 = lowest level; 5 = highest level). Participants in the no-emotion-information control condition did not receive any information about the target's emotion. We provide t-statistics for t-tests between (a) anger at each level of intensity and the no-emotion-information control condition and (b) anger and sadness at each level of intensity.

about the target's emotion. This suggests that high-intensity anger is a negative signal of status.

We find a similar decline in status conferral for sad targets. That is, the higher the target's sadness level, the less likely participants are to confer status to the target. However, status conferral declines faster in response to increases in anger than to increases in sadness. This interaction appears to be driven by perceptions of warmth. That is, expressing any negative emotion at a high level reduces perceptions of competence. However, the effect of emotion intensity on perceptions of warmth differ: increases in anger intensity decrease perceptions of warmth at a faster rate than increases in sadness intensity. Our moderated mediation analyses confirm this: although perceived competence does not play a qualitatively different role in mediating the effects of emotion intensity on status conferral, perceived warmth mediates more strongly for anger than for sadness.

In an additional study in the Online Supplement (Study S2, see Online Supplement 6), we replicate the results of Study 2 using a female, rather than a male, target, suggesting that these results do not hinge on the target's gender.

Importantly, these trends reveal that whether or not expressions of anger result in greater status conferral and increased perceptions of competence relative to expressions of sadness depends entirely on the levels of intensity of anger and sadness that are expressed. For example, although anger expressions increase status conferral compared to sadness at low levels of intensity (e.g., level 2 in our study), anger expressions actually result in lower status conferral than sadness at high levels of intensity (e.g., level 5 in our study). Note that we also do not find any significant differences in status conferral between anger and sadness at moderate levels of intensity (e.g., levels 3 and 4 in our study).

Collectively, these results suggest that previously documented differences in judgments of anger and sadness may have been driven by inferences participants made from the specific stimuli that were used, based on the intensity of the emotion expression in each stimuli. Specifically, in contrast to our use of pre-populated survey responses to manipulate anger and sadness at different levels of intensity in a controlled way, prior work has manipulated expressions of anger or sadness without respect to intensity, such as by using simple statements of emotion expression (e.g., "I am angry" or "I am sad"). These statements may convey anger and sadness at low levels of intensity, or perhaps different levels of intensity, which may account for past findings. Our results demonstrate that the interpersonal effects of anger expressions critically depend upon the intensity of the emotion expression and the specific levels of comparison.

10. Studies 3a-d

In Studies 3a-d, we extend our investigation to test Hypothesis 5. We consider how the appropriateness of an anger expression moderates the effect of anger intensity on status conferral and perceptions of warmth and competence.

Studies 3a-d follow a similar procedure to Study 2: we present participants with a pre-populated survey filled out by a target and ask them to rate the target on several dimensions. For each study, the target describes a different anger-evoking situation that he faced. We manipulate anger appropriateness by altering the severity of the harm associated with the anger-inducing event. We postulate that anger is less appropriate when little harm is caused, but more appropriate when significant harm is caused. In addition, we also manipulate whether the target reacts to the situation with low or high anger. We expect the

Table 4
Wording of the Scenarios Used in Studies 3a-d.

Scenario	Scenario Wording	
	Low Anger Appropriateness	High Anger Appropriateness
Study 3a Colleague borrowed item and broke it	About a month ago, a colleague borrowed my stapler and broke it.	About a month ago, a colleague borrowed my laptop and broke it.
Study 3b Weekend employee failed to complete task	When I came to work last Monday, the weekend shift employee hadn't done what they were supposed to do, so I had to do it. Fortunately , it was a minor task that they left undone, so it took me only an hour to make up for it.	When I came to work last Monday, the weekend shift employee hadn't done what they were supposed to do, so I had to do it. Unfortunately , it was a very important task that they left undone, so it took me the whole day to make up for it.
Study 3c Colleague released company information	One of our colleagues mentioned some company information to an outsider. Fortunately , the information wasn't very sensitive , so it ended up being fine .	One of our colleagues mentioned some company information to an outsider. Unfortunately , the information was very sensitive , so it ended up being a disaster .
Study 3d Team member was late	We once had to give an important presentation in teams in front of our supervisor and other teams. One of our team members promised to bring the final presentation materials to the meeting. He showed up 5 minutes late to the meeting. We started a little later than planned but other than that the meeting could go on as expected.	We once had to give an important presentation in teams in front of our supervisor and other teams. One of our team members promised to bring the final presentation materials to the meeting. He showed up 45 minutes late to the meeting. We couldn't start on time and the meeting didn't go as planned.

Notes. Bolding added to highlight the differences between the scenarios for low vs. high anger appropriateness. Study stimuli did not contain bolding.

appropriateness of an anger expression to moderate the effect of anger intensity on interpersonal perceptions.

Since Studies 3a-d followed a very similar procedure, we first outline the common methods and provide descriptions of the anger-triggering situation used in each study. We then discuss the results across the four studies.

10.1. Method

10.1.1. Participants

We conducted Studies 3a-d using U.S. participants from MTurk. Participants received \$0.70 in exchange for participating in one of the 7-minute studies. For each study, we set the target sample size to 400 people and we allowed only those participants who passed an attention check embedded at the beginning of the survey to participate. Our analyses included data from all participants who responded to at least one of our dependent measures. This left us with final sample sizes of 402 participants in Study 3a (51% female, mean age = 34 years), 405 participants in Study 3b (45% female, mean age = 34 years), 406 participants in Study 3c (44% female, mean age = 35 years), and 402 participants in Study 4a (48% female, mean age = 35 years).

10.1.2. Procedure

As in Study 2, we presented participants in Studies 3a-d with a pre-populated survey seemingly filled out by another study participant (the target). Participants read about a negative workplace situation that the target had experienced and the target's anger in reaction to this situation. Participants learned both how angry the target felt in response to the situation (target's response displayed on 11-point scale; anchored at 1 "not at all angry" and 11 "extremely angry") and how much anger he displayed to others (target's response displayed on 11-point scale with emoticons depicted at scale points 1, 6, and 11).¹¹

10.1.3. Design

We randomly assigned participants to one condition from a 2 (anger intensity: low vs. high) × 2 (anger appropriateness: low vs. high) between-subjects design. As in Study 2, we manipulated anger intensity by changing which scale point the fictional target had checked to

¹¹ Note that in Study 3d we also asked participants at the beginning of the study (i.e., before they viewed the target's responses) to describe a negative workplace situation and their anger in reaction to it, with the goal of making it more credible that the target's responses came from an actual study participant. However, we did not analyze this data and did not include this in Studies 3a-c.

Table 5
Manipulation Check Results for Anger Intensity in Studies 3a-d.

	Low Anger	High Anger	t-statistic
	M (SD)	M (SD)	
Study 3a	14.08 (19.03)	95.22 (14.45)	t(397) = -48.08, p < .001
Study 3b	12.94 (16.25)	90.75 (18.98)	t(401) = -44.28, p < .001
Study 3c	12.03 (14.08)	93.02 (17.46)	t(401) = -51.41, p < .001
Study 3d	5.64 (15.97)	94.13 (15.11)	t(399) = -57.02, p < .001

Table 6
Manipulation Check Results for Anger Appropriateness in Studies 3a-d.

	Low Anger Appropriateness	High Anger Appropriateness	t-statistic
	M (SD)	M (SD)	
Study 3a	2.69 (1.45)	4.89 (1.39)	t(397) = -15.49, p < .001
Study 3b	3.74 (1.47)	4.75 (1.31)	t(401) = -7.26, p < .001
Study 3c	3.35 (1.42)	4.41 (1.28)	t(401) = -7.86, p < .001
Study 3d	3.38 (1.52)	4.79 (1.45)	t(399) = -9.49, p < .001

indicate their anger level. The target's anger level was depicted as either low (by checking the second-to-lowest [Studies 3a-c] or the lowest [Study 3d] scale point on both anger scales) or high (by checking the second-to-highest scale point on both anger scales).

We also manipulated the degree to which high-intensity anger would be appropriate in a given situation by altering the degree of harm caused by the anger-inducing event. For example, in Study 3d, participants either learned that a team member showed up 5 min late to a group meeting which had little effect on the meeting (low anger appropriateness) or that the team member showed up 45 min late to the meeting which negatively impacted the meeting (high anger appropriateness). In Studies 3a-c we used other scenarios, including a colleague borrowing and breaking the target's belongings (either a stapler or their laptop), a weekend employee failing to complete their tasks (that was either minor or very important), or a colleague releasing company information (that was either not very sensitive or very sensitive). Table 4 provides the exact wording of the scenarios.

10.1.4. Dependent measures

After participants viewed the pre-populated survey in each study, we first asked them to describe the target in an open-ended response. Then, we asked them to rate the target using the same focal dependent

measures as in Study 2 (electing a group leader,¹² granting status to a new hire, warmth, and competence, all item α s > 0.90).

10.1.5. Manipulation checks

We also included the same two items that we used in Study 2 as an anger-intensity manipulation check (r s \geq 0.94). In addition, we included a manipulation check for our anger-appropriateness manipulation by asking participants to indicate their answers to the questions 'How justified is it to feel angry in response to this situation?' and 'How appropriate is it to display anger in response to this situation?' (anchored at 1 "not at all" and 7 "extremely"). For each study, we collapsed the two items into a single measure of anger appropriateness (r s \geq 0.61). Lastly, we collected participants' age and gender and gave participants the opportunity to comment on the study.

10.2. Results

10.2.1. Analyses of the manipulation checks

Tables 5 and 6 display the results of the manipulation checks. Both the anger-intensity manipulation and the anger-appropriateness manipulation were successful. In each study, participants judged the target's anger to be higher in the high anger condition than in the low anger condition (all p s < .001), and they also judged the target's anger as more appropriate when anger appropriateness was manipulated to be high than when it was manipulated to be low (all p s < .001).

10.2.2. Main analyses

For our main analyses, we next regressed each of the dependent measures on (a) the anger intensity condition (+0.5 = high anger; -0.5 = low anger), (a) the anger appropriateness condition (+0.5 = high appropriateness; -0.5 = low appropriateness), and (c) their interaction. In what follows, we focus on our focal prediction: we predicted a significant interaction between anger intensity and anger appropriateness (Hypothesis 5), such that the harmful effects of expressing high-intensity anger would be attenuated when it is more appropriate for the target to express anger in a given situation. Table 7 displays the results for each of the dependent measures in Studies 3a-d.

10.2.2.1. Leadership election. Supporting Hypothesis 5, the interaction between anger intensity and anger appropriateness was significant in Studies 3a, c, and d (all p s \leq .003) and marginally significant in Study 3b (p = .057). Across all four studies, when anger appropriateness was low, targets who expressed high anger were less likely to be elected as the group leader compared to targets who expressed low anger (p s < .001). When anger appropriateness was high, however, the effects of anger intensity were reduced, but still significant in Studies 3a-b (p s < .001) and not significant in Studies 3c-d (p s \geq .530). Thus, the harmful effects of expressing high levels of anger are diminished in contexts in which expressing anger is more appropriate.

10.2.2.2. Hiring decision. The interaction between anger intensity and anger appropriateness was also significant for the hypothetical hiring decision across all studies (p s \leq .039), with the nature of the interaction resembling the patterns that we obtained for the leadership election task. When anger appropriateness was low, targets who expressed high anger were granted less status compared to targets who expressed low anger (p s \leq .001). When anger appropriateness was high, however, the effects of anger intensity were reduced, but still significant in Studies 3a-b (p s < .001) and not significant in Studies 3c-d (p s \geq .211).

¹²The instructions for the leadership election in Study 3d differed slightly from the ones used in Studies 3a-c, as they did not contain as much detail on the position of the group leader. The exact wording can be viewed in the Materials posted online (<https://osf.io/egtrb>).

10.2.2.3. Competence and warmth. The results for perceived competence and warmth followed a pattern similar to the results for our status conferral measures. For both competence and warmth, we found a significant interaction between anger intensity and anger appropriateness across all four studies (p s \leq .029). First, when anger appropriateness was low, targets who expressed high anger were perceived to be less competent compared to targets who expressed low anger (p s \leq .015). When anger appropriateness was high, however, the effects of anger intensity on competence were reduced, but still significant in Studies 3a-b (p s \leq .014) and not significant in Studies 3c-d (p s \geq .244). Second, when anger appropriateness was low, targets who expressed high anger were also perceived to be less warm than targets who expressed low anger (p s < .001), but these effects were reduced when anger appropriateness was high (p s < .001).

Taken together, these results demonstrate that appropriateness robustly moderates the relationship between the intensity of an anger expression and interpersonal perceptions. Expressing high levels of anger is less harmful when such anger expressions are warranted.

10.2.3. Mediation analyses

We also tested whether anger appropriateness moderates the mediation of anger intensity on status conferral through competence and warmth. For each of Studies 3a-d, we ran a moderated mediation model with 10,000 samples (SPSS PROCESS Macro, Model 7, Hayes, 2013) using the leadership election as the dependent variable, anger intensity as the independent variable, anger appropriateness as the moderator, and competence and warmth as the mediators. We found evidence of moderated mediation for both competence and warmth in all four studies. We summarize the results below and present the detailed results in Table S5 in the Online Supplement.¹³

Across all four studies, we find evidence of moderated mediation, such that perceptions of both competence and warmth mediate the effect of anger intensity on status conferral more when anger is inappropriate than when anger is appropriate. That is, not only are high-intensity anger expressions more detrimental for status conferral when high-intensity anger expressions are less appropriate, but the relationship between anger expressions and status conferral is more strongly mediated by perceptions of competence and warmth when anger is inappropriate than when it is appropriate.

10.3. Discussion

Across Studies 3a-d, we find that appropriateness moderates the relationships between the intensity of an anger expression and status conferral, warmth, and competence. In contexts in which anger is appropriate, the harmful effects of expressing high levels of anger are diminished. These studies also demonstrate that the effects of anger intensity on status conferral hold across a variety of situations and anger triggers.

Interestingly, we observed that when anger appropriateness was high, the effects of anger intensity on status conferral and perceptions of warmth and competence were reduced, but still significant in Studies 3a-b and not significant in Studies 3c-d. One notable difference between these two sets of studies is the nature of the harm that triggered the anger expression. In Studies 3a-b, the harm only affected the expresser (e.g., the expresser's item broke), whereas in Studies 3c-d, the harm also affected others (e.g., the release of company information impacted many people). It is possible that differences in the nature of the harm that triggers the anger expression may help account for differences in perceptions of competence, warmth, and status conferral. We develop

¹³We present the results for a second set of moderated mediation analyses in which we used the hiring decision as the dependent variable in the Online Supplement. In these mediation analyses, we again find evidence of moderated mediation for both competence and warmth in all four studies (see Table S6).

Table 7
Results for Studies 3a-d.

Study	Low Anger		High Anger	Main Effect of Anger Intensity		Main Effect of Anger Appropriateness		Interaction Between Anger Intensity and Appropriateness	
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Status Conferral: Leadership Election									
3a	All Data	4.22 (1.78)	2.17 (1.48)	<i>b</i> = -2.05, <i>SE</i> = 0.16, <i>p</i> < .001		<i>b</i> = 0.45, <i>SE</i> = 0.16, <i>p</i> = .005		<i>b</i> = 1.17, <i>SE</i> = 0.32, <i>p</i> < .001	
	Low Anger Appropriateness	4.29 (1.81)	1.65 (1.15)	<i>b</i> = -2.64, <i>SE</i> = 0.21, <i>p</i> < .001					
	High Anger Appropriateness	4.15 (1.75)	2.69 (1.59)	<i>b</i> = -1.47, <i>SE</i> = 0.24, <i>p</i> < .001					
3b	All Data	4.92 (1.59)	3.05 (1.75)	<i>b</i> = -1.89, <i>SE</i> = 0.17, <i>p</i> < .001		<i>b</i> = 0.28, <i>SE</i> = 0.17, <i>p</i> = .090		<i>b</i> = 0.63, <i>SE</i> = 0.33, <i>p</i> = .057	
	Low Anger Appropriateness	4.93 (1.55)	2.73 (1.70)	<i>b</i> = -2.20, <i>SE</i> = 0.23, <i>p</i> < .001					
	High Anger Appropriateness	4.90 (1.64)	3.33 (1.75)	<i>b</i> = -1.57, <i>SE</i> = 0.24, <i>p</i> < .001					
3c	All Data	3.84 (1.65)	2.94 (1.74)	<i>b</i> = -0.90, <i>SE</i> = 0.16, <i>p</i> < .001		<i>b</i> = -0.17, <i>SE</i> = 0.16, <i>p</i> = .308		<i>b</i> = 1.49, <i>SE</i> = 0.33, <i>p</i> < .001	
	Low Anger Appropriateness	4.30 (1.43)	2.66 (1.79)	<i>b</i> = -1.64, <i>SE</i> = 0.23, <i>p</i> < .001					
	High Anger Appropriateness	3.38 (1.74)	3.23 (1.64)	<i>b</i> = -0.15, <i>SE</i> = 0.24, <i>p</i> = .530					
3d	All Data	3.87 (1.86)	3.23 (1.88)	<i>b</i> = -0.63, <i>SE</i> = 0.19, <i>p</i> = .001		<i>b</i> = -0.07, <i>SE</i> = 0.19, <i>p</i> = .725		<i>b</i> = 1.11, <i>SE</i> = 0.37, <i>p</i> = .003	
	Low Anger Appropriateness	4.18 (1.69)	2.99 (1.86)	<i>b</i> = -1.19, <i>SE</i> = 0.25, <i>p</i> < .001					
	High Anger Appropriateness	3.56 (1.98)	3.48 (1.87)	<i>b</i> = -0.08, <i>SE</i> = 0.27, <i>p</i> = .769					
Status Conferral: Hiring Decision									
3a	All Data	4.36 (1.20)	3.21 (1.32)	<i>b</i> = -1.15, <i>SE</i> = 0.12, <i>p</i> < .001		<i>b</i> = 0.36, <i>SE</i> = 0.12, <i>p</i> = .004		<i>b</i> = 0.85, <i>SE</i> = 0.25, <i>p</i> = .001	
	Low Anger Appropriateness	4.39 (1.23)	2.81 (1.22)	<i>b</i> = -1.58, <i>SE</i> = 0.17, <i>p</i> < .001					
	High Anger Appropriateness	4.33 (1.18)	3.60 (1.30)	<i>b</i> = -0.73, <i>SE</i> = 0.18, <i>p</i> < .001					
3b	All Data	4.78 (1.21)	3.88 (1.26)	<i>b</i> = -0.90, <i>SE</i> = 0.12, <i>p</i> < .001		<i>b</i> = 0.07, <i>SE</i> = 0.12, <i>p</i> = .563		<i>b</i> = 0.51, <i>SE</i> = 0.24, <i>p</i> = .039	
	Low Anger Appropriateness	4.86 (1.13)	3.71 (1.24)	<i>b</i> = -1.15, <i>SE</i> = 0.17, <i>p</i> < .001					
	High Anger Appropriateness	4.68 (1.28)	4.03 (1.26)	<i>b</i> = -0.65, <i>SE</i> = 0.18, <i>p</i> < .001					
3c	All Data	4.04 (1.20)	3.77 (1.26)	<i>b</i> = -0.27, <i>SE</i> = 0.12, <i>p</i> = .024		<i>b</i> = -0.11, <i>SE</i> = 0.12, <i>p</i> = .345		<i>b</i> = 0.97, <i>SE</i> = 0.24, <i>p</i> < .001	
	Low Anger Appropriateness	4.34 (1.10)	3.59 (1.31)	<i>b</i> = -0.76, <i>SE</i> = 0.17, <i>p</i> < .001					
	High Anger Appropriateness	3.75 (1.23)	3.96 (1.19)	<i>b</i> = 0.21, <i>SE</i> = 0.17, <i>p</i> = .211					
3d	All Data	4.15 (1.31)	3.84 (1.34)	<i>b</i> = -0.31, <i>SE</i> = 0.13, <i>p</i> = .018		<i>b</i> = -0.10, <i>SE</i> = 0.13, <i>p</i> = .442		<i>b</i> = 0.59, <i>SE</i> = 0.26, <i>p</i> = .026	
	Low Anger Appropriateness	4.35 (1.18)	3.74 (1.39)	<i>b</i> = -0.60, <i>SE</i> = 0.18, <i>p</i> = .001					
	High Anger Appropriateness	3.95 (1.40)	3.94 (1.29)	<i>b</i> = -0.02, <i>SE</i> = 0.19, <i>p</i> = .925					
Perceived Competence									
3a	All Data	4.73 (1.29)	3.93 (1.37)	<i>b</i> = -0.80, <i>SE</i> = 0.13, <i>p</i> < .001		<i>b</i> = 0.45, <i>SE</i> = 0.13, <i>p</i> = .001		<i>b</i> = 0.66, <i>SE</i> = 0.26, <i>p</i> = .012	
	Low Anger Appropriateness	4.67 (1.33)	3.54 (1.38)	<i>b</i> = -1.13, <i>SE</i> = 0.19, <i>p</i> < .001					
	High Anger Appropriateness	4.79 (1.25)	4.32 (1.25)	<i>b</i> = -0.47, <i>SE</i> = 0.18, <i>p</i> = .009					
3b	All Data	5.54 (1.06)	4.92 (1.11)	<i>b</i> = -0.63, <i>SE</i> = 0.11, <i>p</i> < .001		<i>b</i> = 0.11, <i>SE</i> = 0.11, <i>p</i> = .296		<i>b</i> = 0.53, <i>SE</i> = 0.22, <i>p</i> = .015	
	Low Anger Appropriateness	5.61 (1.08)	4.72 (1.14)	<i>b</i> = -0.89, <i>SE</i> = 0.16, <i>p</i> < .001					
	High Anger Appropriateness	5.46 (1.04)	5.10 (1.06)	<i>b</i> = -0.37, <i>SE</i> = 0.15, <i>p</i> = .014					
3c	All Data	4.75 (1.14)	4.51 (1.20)	<i>b</i> = -0.24, <i>SE</i> = 0.11, <i>p</i> = .039		<i>b</i> = -0.06, <i>SE</i> = 0.11, <i>p</i> = .582		<i>b</i> = 0.84, <i>SE</i> = 0.23, <i>p</i> < .001	
	Low Anger Appropriateness	4.99 (1.11)	4.34 (1.29)	<i>b</i> = -0.66, <i>SE</i> = 0.17, <i>p</i> < .001					
	High Anger Appropriateness	4.51 (1.12)	4.69 (1.08)	<i>b</i> = 0.18, <i>SE</i> = 0.16, <i>p</i> = .244					
3d	All Data	4.73 (1.23)	4.59 (1.39)	<i>b</i> = -0.14, <i>SE</i> = 0.13, <i>p</i> = .272		<i>b</i> = -0.06, <i>SE</i> = 0.13, <i>p</i> = .654		<i>b</i> = 0.57, <i>SE</i> = 0.26, <i>p</i> = .029	
	Low Anger Appropriateness	4.91 (1.11)	4.48 (1.35)	<i>b</i> = -0.43, <i>SE</i> = 0.17, <i>p</i> = .015					
	High Anger Appropriateness	4.56 (1.32)	4.70 (1.42)	<i>b</i> = 0.14, <i>SE</i> = 0.19, <i>p</i> = .466					

(continued on next page)

Table 7 (continued)

Study	Perceived Warmth	Low Anger		High Anger		Main Effect of Anger Intensity		Main Effect of Anger Appropriateness		Interaction Between Anger Intensity and Appropriateness	
		M (SD)	M (SD)	M (SD)	M (SD)	b	SE	b	SE	b	SE
3a	All Data	5.28 (1.25)	5.28 (1.25)	2.90 (1.46)	2.90 (1.46)	b = -2.38, SE = 0.13, p < .001		b = 0.80, SE = 0.13, p < .001		b = 1.03, SE = 0.26, p < .001	
	Low Anger Appropriateness	5.14 (1.35)	5.14 (1.35)	2.24 (1.13)	2.24 (1.13)	b = -2.90, SE = 0.18, p < .001					
	High Anger Appropriateness	5.42 (1.12)	5.42 (1.12)	3.55 (1.45)	3.55 (1.45)	b = -1.86, SE = 0.18, p < .001					
3b	All Data	5.65 (1.01)	5.65 (1.01)	3.53 (1.33)	3.53 (1.33)	b = -2.12, SE = 0.12, p < .001		b = 0.13, SE = 0.12, p = .254		b = 0.57, SE = 0.23, p = .014	
	Low Anger Appropriateness	5.72 (1.06)	5.72 (1.06)	3.31 (1.30)	3.31 (1.30)	b = -2.41, SE = 0.17, p < .001					
	High Anger Appropriateness	5.57 (.96)	5.57 (.96)	3.73 (1.33)	3.73 (1.33)	b = -1.84, SE = 0.16, p < .001					
3c	All Data	4.91 (1.07)	4.91 (1.07)	3.43 (1.29)	3.43 (1.29)	b = -1.48, SE = 0.12, p < .001		b = -0.001, SE = 0.12, p = .991		b = 1.06, SE = 0.23, p < .001	
	Low Anger Appropriateness	5.18 (1.00)	5.18 (1.00)	3.17 (1.33)	3.17 (1.33)	b = -2.01, SE = 0.16, p < .001					
	High Anger Appropriateness	4.65 (1.09)	4.65 (1.09)	3.70 (1.19)	3.70 (1.19)	b = -0.95, SE = 0.16, p < .001					
3d	All Data	5.15 (1.22)	5.15 (1.22)	3.47 (1.44)	3.47 (1.44)	b = -1.68, SE = 0.13, p < .001		b = -0.10, SE = 0.13, p = .451		b = 0.63, SE = 0.27, p = .019	
	Low Anger Appropriateness	5.35 (1.03)	5.35 (1.03)	3.36 (1.47)	3.36 (1.47)	b = -1.99, SE = 0.18, p < .001					
	High Anger Appropriateness	4.94 (1.35)	4.94 (1.35)	3.58 (1.42)	3.58 (1.42)	b = -1.36, SE = 0.20, p < .001					

Notes. The results come from regressing each of the dependent measures on (a) the anger intensity condition (+0.5 = high anger; -0.5 = low anger), (b) the anger appropriateness condition (+0.5 = high anger appropriateness; -0.5 = low anger appropriateness), and (c) their interaction.

this idea further in the General Discussion.

11. Study 4

In Study 4, we extend our investigation by independently manipulating the appropriateness of an anger expression (as in Study 3) and the intensity of an anger expression at five levels (as in Study 2). We also include a no-emotion-information control condition in this study. This allows us to test whether different levels of anger diminish or increase status compared to no emotion information, and whether this depends on the appropriateness of the anger expression. In doing so, this study shows that the relationship between anger intensity and status conferral does not simply reflect the appropriateness of an anger expression. In this study, we also measure perceptions of self-control to deepen our understanding of how the intensity of an anger expression influences perceptions of competence.

11.1. Method

11.1.1. Participants

We recruited U.S. participants via MTurk, and paid each participants \$0.70 in exchange for participating in a 7-minute study. We decided in advance to recruit 1,300 participants and allowed only those participants who passed an attention check embedded at the beginning of the survey to participate. Our analyses included data from all participants who responded to at least one of our dependent measures. As pre-registered, we excluded 25 participants from the analyses because they failed to correctly recall at the end of the study whether the scenario that they read involved a stapler or a laptop, leaving us with a final sample of 1,279 participants (52% female, mean age = 38 years).

11.1.2. Procedure

The procedure of Study 4 was very similar to that of Study 2. We used the same pre-populated survey as in Study 2, except that the target described a different anger-eliciting situation in his open-ended response. In this study, a colleague had borrowed an item and broke it (see also Study 3a).

11.1.3. Design

We randomly assigned participants to one of 12 conditions from a 2 (anger appropriateness: low vs. high) × 6 (5 levels of anger intensity, plus a no-emotion-information control condition) between-subjects design. As in Study 3a, we manipulated anger appropriateness by manipulating whether the target described that a colleague had broken the target's stapler (low anger appropriateness) or laptop (high anger appropriateness). As in Study 2, we also manipulated anger intensity by manipulating whether the target had checked level 1, 3, 5, 7, or 9 on the response scales that indicated their anger. In addition, we included a no-emotion-information control condition in the study in which participants did not receive any information about the target's anger.

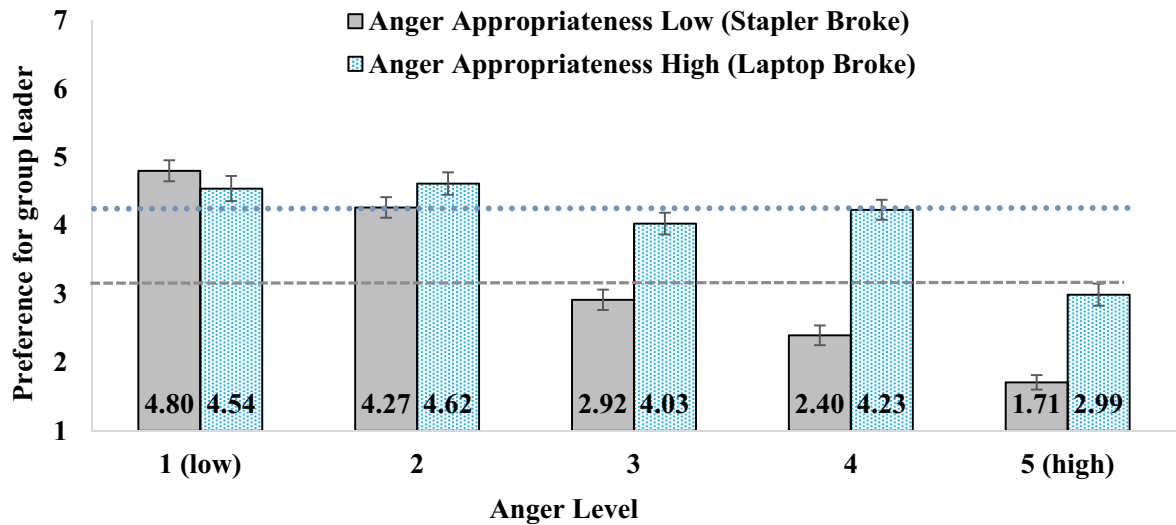
11.1.4. Dependent measures

We included the same dependent measures in this study as we included in Studies 2 and 3a-d ($\alpha \geq .90$). In addition, we asked participants to indicate how much self-control they thought the target had using three items: (1) 'This person seems to have control over himself,' (2) 'This person has a lot of self-control,' and (3) 'This person seems to have control over his emotions' (anchored at 1 = "completely disagree" and 7 = "completely agree"; $\alpha = 0.97$; Wolf et al., 2016).

11.2. Results

11.2.1. Analyses of manipulation checks

As expected, the higher the manipulated anger level, the higher participants rated the target's anger, $b = 22.90$, $SE = 0.27$, $t(1063) = 83.62$, $p < .001$. In addition, participants rated it to be more



Anger Level:	1 (low)	2	3	4	5 (high)
<u>Stapler Broke:</u>					
Anger vs. No Emotion Information	***	***	ns	***	***
<u>Laptop Broke:</u>					
Anger vs. No Emotion Information	ns	ns	ns	ns	***

Fig. 4. Results for the Leadership Election in Study 4. The higher the target's anger intensity, the less likely participants are to elect the target as the group leader ($p < .001$). The effect of anger intensity is larger when anger appropriateness is low (stapler broke) than when anger appropriateness is high (laptop broke). The dash-dotted grey line represents the mean rating when no emotion information is provided in the stapler scenario (anger appropriateness low; $M = 3.17$), and the dotted blue line represents the mean rating when no emotion information is provided in the laptop scenario (anger appropriateness high; $M = 4.25$). When anger appropriateness is low, participants prefer individuals who express low anger (levels 1 and 2) as a group leader to individuals for whom no emotion information is provided, but they prefer individuals for whom no emotion information is provided to individuals who express high anger (levels 4 and 5). When anger appropriateness is high, participants also prefer individuals for whom no emotion information is provided to individuals who express high anger (level 5). Error bars reflect ± 1 SE. *** $p \leq .001$, ** $p < .01$, * $p < .05$.

Table 8
Regression Results in Study 4.

	Main Effect of Anger Intensity	Main Effect of Anger Appropriateness	Interaction Between Anger Intensity and Appropriateness
Status Conferral: Leadership Election			
All Data	$b = -0.58, SE = 0.03, p < .001$	$b = 0.86, SE = 0.10, p < .001$	$b = 0.46, SE = 0.07, p < .001$
Stapler Broken	$b = -0.81, SE = 0.04, p < .001$		
Laptop Broken	$b = -0.34, SE = 0.05, p < .001$		
Status Conferral: Hiring Decision			
All Data	$b = -0.30, SE = 0.02, p < .001$	$b = 0.62, SE = 0.07, p < .001$	$b = 0.29, SE = 0.05, p < .001$
Stapler Broken	$b = -0.45, SE = 0.03, p < .001$		
Laptop Broken	$b = -0.15, SE = 0.04, p < .001$		
Perceived Competence			
All Data	$b = -0.34, SE = 0.02, p < .001$	$b = 0.54, SE = 0.07, p < .001$	$b = 0.26, SE = 0.05, p < .001$
Stapler Broken	$b = -0.47, SE = 0.04, p < .001$		
Laptop Broken	$b = -0.20, SE = 0.03, p < .001$		
Perceived Warmth			
All Data	$b = -0.51, SE = 0.03, p < .001$	$b = 0.88, SE = 0.07, p < .001$	$b = 0.34, SE = 0.05, p < .001$
Stapler Broken	$b = -0.68, SE = 0.04, p < .001$		
Laptop Broken	$b = -0.34, SE = 0.04, p < .001$		
Perceived Self-control			
All Data	$b = -0.98, SE = 0.03, p < .001$	$b = 1.03, SE = 0.08, p < .001$	$b = 0.30, SE = 0.06, p < .001$
Stapler Broken	$b = -1.13, SE = 0.04, p < .001$		
Laptop Broken	$b = -0.83, SE = 0.04, p < .001$		

Notes. The results come from regressing the dependent measures on (a) the anger intensity condition (levels 1-5; mean-centered), (b) the anger appropriateness condition (+0.5 = high appropriateness; -0.5 = low appropriateness), and (c) their interaction.

appropriate to react with anger when the broken item was a laptop than when it was a stapler, $b = 2.30$, $SE = 0.08$, $t(1063) = 27.36$, $p < .001$.

11.2.2. Main analyses

As pre-registered, we omitted the no-emotion-information control condition for our main analyses, resulting in $N = 1,065$. We regressed each of the dependent measures on (a) the anger intensity condition (levels 1-5; mean-centered), (a) the anger appropriateness condition ($+0.5 =$ high appropriateness; $-0.5 =$ low appropriateness), and (c) their interaction. Fig. 4 graphically depicts the results for the leadership election task and Table 8 depicts the regression results for all of our dependent measures.

11.2.2.1. Status conferral, competence, and warmth. For the leadership election, we again found a main effect of anger intensity: the higher the target's anger intensity, the less likely participants were to elect the target as their group leader, $b = -0.58$, $SE = 0.03$, $t(1061) = -16.80$, $p < .001$. In addition, participants were more likely to elect the target as their group leader when expressing anger was more appropriate (laptop broke) than when it was less appropriate (stapler broke), $b = 0.86$, $SE = 0.10$, $t(1061) = 8.86$, $p < .001$. The interaction between anger intensity and anger appropriateness was also significant, $b = 0.46$, $SE = 0.07$, $t(1061) = 6.73$, $p < .001$, such that the effect of anger intensity was smaller when anger appropriateness was high ($b = -0.34$, $SE = 0.05$, $t(519) = -6.58$, $p < .001$) than when it was low ($b = -0.81$, $SE = 0.04$, $t(542) = -18.11$, $p < .001$). Table 8 shows that the results for the hypothetical hiring decision, perceived competence, and perceived warmth followed a pattern similar to the leadership election (all $ps < .001$). That is, replicating the results from Studies 3a-d, increasing the intensity of an anger expression harmed status conferral and interpersonal perceptions to a lesser extent when it was more appropriate to express anger.

11.2.2.2. Self-control. We also found a similar pattern of results for our new measure of self-control. First, the higher the target's anger intensity, the less self-control participants judged the target to have, $b = -0.98$, $SE = 0.03$, $t(1061) = -33.68$, $p < .001$. Second, participants judged the target as having more self-control when expressing anger was more appropriate (laptop broke) than when it was less appropriate (stapler broke), $b = 1.03$, $SE = 0.08$, $t(1061) = 12.46$, $p < .001$. Third, we again found a significant interaction between anger intensity and anger appropriateness, $b = 0.30$, $SE = 0.06$, $t(1061) = 5.17$, $p < .001$, such that the effect of anger intensity on self-control was smaller when anger appropriateness was high ($b = -0.83$, $SE = 0.04$, $t(519) = -19.95$, $p < .001$) than when it was low ($b = -1.13$, $SE = 0.04$, $t(542) = -27.77$, $p < .001$).

Taking a closer look at the mean values displayed in Table 9, we see that low levels of anger (level 1) signal self-control regardless of whether expressing anger is appropriate in a given situation. However, when people fail to regulate their emotions, and display higher levels of anger, the appropriateness of an anger expression in a given situation matters for perceptions of self-control: high levels of anger (levels 4 and 5) decrease perceptions of self-control to a greater extent in situations in which anger is less appropriate than in situations in which anger is more appropriate.

11.2.3. Planned contrasts

As pre-registered, we next conducted planned contrasts between each level of anger intensity and the no-emotion-information control condition for each of the anger appropriateness conditions separately to determine at which level of intensity anger confers more or less status than providing no emotion information. Fig. 4 depicts the results for the leadership election, and Table 9 depicts the results for all other dependent measures.

Replicating the results from our previous studies, Fig. 4 shows that expressing anger has different effects on status conferral depending on

the intensity with which it is expressed and the appropriateness of expressing anger in a given situation. When anger appropriateness is low (stapler broke), expressing anger at low levels (levels 1 and 2) significantly boosts one's prospect of being elected as the group leader, but expressing anger at high levels (levels 4 and 5) significantly harms one's prospect of being elected as the group leader. Importantly, however, even when anger appropriateness is high, we still see that expressing anger at high levels (level 5) harms one's prospects of being elected as a group leader. Expressing low anger in this circumstance directionally increases one's prospect of being elected as the group leader.¹⁴ Table 9 shows a similar pattern of results for the hiring decision, and for perceptions of competence and warmth.

Taken together, the results from the planned contrasts suggest that both the positive effects of expressing low anger and the negative effects of expressing high anger are stronger when anger appropriateness is low than when it is high. We further test this using moderated mediation.

11.2.4. Mediation analyses

11.2.4.1. Warmth and competence as mediators. We next tested perceptions of warmth and competence as potential mediators for the effects of anger intensity on status conferral. We ran a moderated mediation analysis with 10,000 samples (SPSS PROCESS Macro, Model 7, Hayes, 2013) with the leadership election task as the dependent variable, anger intensity as the independent variable, anger appropriateness (low vs. high) as the moderator, and perceptions of competence and warmth as the mediators.¹⁵

We present the results in the Online Supplement (see Table S7). Replicating our results from Studies 3a-d, we again found evidence of moderated mediation: both when anger appropriateness was low and when it was high, targets who expressed high anger were perceived to be less competent and warm, which reduced status conferral. However, this effect was stronger when anger appropriateness was low than when it was high. That is, both warmth and competence mediated the effects of anger intensity more strongly when anger appropriateness was low than when it was high.

11.2.4.2. Self-control as a mediator. We also conducted an additional moderated mediation analysis to test whether self-control also drives the relationship between anger intensity and competence. In this analysis, we used competence as the dependent variable, anger intensity as the independent variable, anger appropriateness (low vs. high) as the moderator, and perceptions of self-control as the mediator.

We found evidence of moderated mediation via self-control. For both low and high anger appropriateness, targets who expressed high anger intensity were perceived to have less self-control, which harmed perceptions of competence. But this effect was stronger for low anger appropriateness (conditional indirect effect of self-control: -0.58 , 95% CI = $[-0.64; -0.53]$) than for high anger appropriateness (conditional indirect effect of self-control: -0.43 , 95% CI = $[-0.48; -0.38]$; index of moderated mediation: 0.16 [$0.10; 0.21$]). In domains in which anger expressions are inappropriate, elevated expressions of anger harm perceptions of self-control more than they do in domains in which anger expressions are appropriate.

¹⁴ Table 9 shows that this positive effect of expressing low anger when anger appropriateness is high is significant for the hiring decision and perceptions of warmth and competence.

¹⁵ We present the results for a second moderated mediation analysis in which we used the hiring decision as the dependent variable in the Online Supplement (see Table S7). In this mediation analysis, we again find evidence of moderated mediation for both competence and warmth.

Table 9
Planned Contrasts at Each Level of Anger Intensity in Study 4.

Low Anger Appropriateness				High Anger Appropriateness			
No Emotion Information	Anger	Anger vs. No Emotion Information		No Emotion Information	Anger	Anger vs. No Emotion Information	
<i>M(SD)</i>	<i>Level</i>	<i>M(SD)</i>		<i>M(SD)</i>	<i>Level</i>	<i>M(SD)</i>	
Status Conferral: Leadership Election							
3.17 (1.60)	1	4.80 (1.62)	$t(217) = 7.51, p < .001$	4.25 (1.48)	1	4.54 (1.90)	$t(211) = 1.27, p = .206$
	2	4.27 (1.60)	$t(219) = 5.11, p < .001$		2	4.62 (1.67)	$t(208) = 1.70, p = .091$
	3	2.92 (1.53)	$t(212) = -1.18, p = .241$		3	4.03 (1.60)	$t(203) = -1.00, p = .319$
	4	2.40 (1.45)	$t(207) = -3.64, p < .001$		4	4.23 (1.51)	$t(212) = -0.07, p = .946$
	5	1.71 (1.12)	$t(219) = -7.88, p < .001$		5	2.99 (1.64)	$t(207) = -5.81, p < .001$
Status Conferral: Hiring Decision							
3.78 (1.07)	1	4.67 (1.16)	$t(217) = 5.91, p < .001$	4.33 (1.04)	1	4.67 (1.30)	$t(211) = 2.09, p = .038$
	2	4.24 (1.10)	$t(219) = 3.15, p = .002$		2	4.59 (1.16)	$t(208) = 1.65, p = .100$
	3	3.65 (1.01)	$t(212) = -0.93, p = .356$		3	4.21 (1.07)	$t(203) = -0.85, p = .397$
	4	3.45 (1.11)	$t(207) = -2.21, p = .028$		4	4.49 (0.98)	$t(212) = 1.09, p = .276$
	5	2.84 (1.12)	$t(219) = -6.38, p < .001$		5	3.95 (1.11)	$t(207) = -2.56, p = .011$
Perceived Competence							
4.25 (1.27)	1	5.33 (1.07)	$t(217) = 6.80, p < .001$	4.97 (1.15)	1	5.29 (1.12)	$t(211) = 2.05, p = .042$
	2	4.83 (1.11)	$t(219) = 3.63, p < .001$		2	5.08 (1.08)	$t(208) = 0.75, p = .457$
	3	4.17 (1.19)	$t(212) = -0.44, p = .658$		3	4.75 (1.08)	$t(203) = -1.44, p = .151$
	4	3.96 (1.21)	$t(207) = -1.66, p = .098$		4	4.95 (0.97)	$t(212) = -0.15, p = .882$
	5	3.43 (1.27)	$t(219) = -4.80, p < .001$		5	4.33 (1.14)	$t(207) = -4.04, p < .001$
Perceived Warmth							
4.08 (1.33)	1	5.46 (1.06)	$t(217) = 8.52, p < .001$	5.13 (1.20)	1	5.56 (1.12)	$t(211) = 2.70, p = .008$
	2	4.89 (1.08)	$t(219) = 4.97, p < .001$		2	5.41 (1.04)	$t(208) = 1.79, p = .075$
	3	3.78 (1.31)	$t(212) = -1.63, p = .104$		3	4.77 (1.11)	$t(203) = -2.26, p = .025$
	4	3.37 (1.24)	$t(207) = -3.99, p < .001$		4	4.85 (1.09)	$t(212) = -1.77, p = .078$
	5	2.81 (1.19)	$t(219) = -7.49, p < .001$		5	4.14 (1.35)	$t(207) = -5.59, p < .001$
Perceived Self-control							
4.51 (1.34)	1	6.14 (0.89)	$t(217) = 10.61, p < .001$	5.02 (1.33)	1	6.19 (1.12)	$t(211) = 6.99, p < .001$
	2	5.28 (1.47)	$t(219) = 4.08, p < .001$		2	5.98 (1.08)	$t(208) = 5.79, p < .001$
	3	3.39 (1.63)	$t(212) = -5.50, p < .001$		3	5.09 (1.30)	$t(203) = 0.41, p = .683$
	4	2.66 (1.42)	$t(207) = -9.70, p < .001$		4	4.37 (1.48)	$t(212) = -3.37, p < .001$
	5	1.81 (1.14)	$t(219) = -16.19, p < .001$		5	2.84 (1.52)	$t(207) = -11.04, p < .001$

Notes. We manipulated anger at 5 different levels of intensity (1 = lowest level; 5 = highest level). Participants in the no-emotion-information control condition did not receive any information about the target's anger. We provide t-statistics for t-tests between anger at each level of intensity and the no-emotion-information control condition, separately for each of the appropriateness conditions.

11.3. Discussion

Replicating the results of Studies 3a-d, Study 4 again found that the harmful effects of high-intensity anger are stronger when anger expressions are inappropriate than when anger expressions are appropriate. Importantly, however, even when it is appropriate to display anger, we still find that high levels of anger intensity harm status conferral compared to no emotion information. In this study, we also find that self-control mediates the effect of anger intensity on perceptions of competence. These results reveal that the interpersonal consequences of high-intensity anger are not simply a reflection of perceptions of appropriateness. Even when expressions of elevated levels of anger are deemed to be appropriate, high-level expressions of anger are penalized because these expressions reflect a lack of self-control.

12. General discussion

In contrast to prior work that has made broad claims about the effects of expressing anger, our research reveals that the intensity of an anger expression matters. Across seven studies, we demonstrate that

high-intensity anger harms status conferral. Compared to mildly or moderately angry people, very sad people, or people for whom no emotion information is provided, individuals who express high levels of anger are less likely to be accorded status. This result is mediated by the perception that people who express anger at high levels of intensity are less competent and less warm than people who express mild or moderate anger, high sadness, or people for whom no emotion information is provided. The appropriateness of the anger expression moderates the relationship between anger expressions and interpersonal judgments: in contexts where anger expressions are more appropriate, high-intensity expressions of anger are less harmful. We observed these effects using a variety of stimuli to manipulate anger intensity, including in-person interactions (Study 1), video stimuli (Study S1), and pre-populated surveys (Studies 2-4 and S2-S3). We also tested a variety of anger-eliciting situations across our studies and used two different measures of status conferral, a leadership election and a hiring decision.

Importantly, our results challenge the claim that people accord greater status to angry individuals than they do to sad individuals. This claim was made without accounting for the intensity of either emotion. Our results reveal that, although anger expressions can increase status

conferral relative to sadness when both emotions are expressed at low levels, anger expressions *harm* status conferral relative to sadness when both emotions are expressed at high levels. Similarly, when the two emotions are expressed at different levels, there is no consistent pattern with respect to which emotion confers greater status than the other. We assert that *the interpersonal effects of emotional expressions critically hinge on the intensity of the expressed emotions*.

Our findings make a significant contribution to theory by underscoring the importance of accounting for intensity when studying the interpersonal consequences of emotion. Recently, scholars have made enormous progress in developing our understanding of emotions by moving beyond the simple study of discrete emotions, for example, by investigating emotional ambivalence (e.g., Rees, Rothman, Lehavy, & Sanchez-Burkes, 2013; Rothman, 2011; Rothman & Melwani, 2017; Rothman & Northcraft, 2015; Rothman, Pratt, Rees, & Vogus, 2017) and emotional transitions (e.g., Filipowicz, Barsade, & Melwani, 2011). Our work highlights another key limitation of the extant emotion literature. With few exceptions (c.f. Adam & Brett, 2018; Barasch et al., 2016; Hess et al., 2000), this literature has studied the effects of specific emotions without considering the intensity of the emotion. Our findings demonstrate that this is a critical omission. By failing to consider the intensity of an emotion, we may draw inferences that are either overly broad or incorrect.

Our findings also have important practical implications. Whereas prior work suggests that expressing anger may be effective for attaining status, our findings identify important boundary conditions of this relationship. Although expressing low levels of anger may be beneficial for gaining status, expressing high levels of anger is harmful. Similarly, we find that high levels of anger can diminish perceived warmth and competence. Thus, individuals should exercise caution when expressing anger at high levels. Furthermore, we demonstrate that the social consequences of high-intensity anger are highly context dependent. When individuals do express extreme anger, they should communicate why their reaction is appropriate and what triggered their reaction.

12.1. Future directions

Although we document a robust negative relationship between the intensity of anger expressions and status conferral, many open questions remain regarding the interpersonal consequences of expressing anger at different levels of intensity. Quite possibly, many of the existing claims in the literature regarding how angry individuals are perceived and treated should be re-examined with studies that vary the level of anger intensity. We call for future work to investigate the social consequences of anger, as well as other specific emotions, to enhance our understanding of how the intensity of an emotion expression alters the nature of existing findings.

Future work could also explore whether there are consequences from expressing anger at high levels of intensity in status conferral contexts other than those investigated in our work. In our studies, we measured status conferral using a leadership election task and hypothetical hiring decisions. High-intensity anger harmed these measures of status conferral, in part, because it signaled low warmth. However, warmth may play a larger role for certain types of status acquisition than for others. In fact, in the status literature, the prestige-dominance model distinguishes between high- and low-warmth strategies of attaining status (e.g., Cheng et al., 2010; Cheng et al., 2013; Cheng & Tracy, 2014; Maner & Case, 2016; Shariff & Tracy, 2009). Whereas prestige is seen as the sharing of skills and knowledge to acquire respect and recognition, dominance is seen as the use of intimidation and coercion to induce fear and acquire status (Cheng et al., 2010; Cheng et al., 2013; Wiltermuth, 2009; Wiltermuth et al., 2015). Expressing anger at high levels is likely to be more harmful for prestige than for dominance. In fact, we found this in a supplemental study

(Study S3 in the Online Supplement). Moreover, hiring and leadership election decisions are likely driven by judgments of prestige more than dominance. In line with this, in Study S3, we found that our measures of status conferral were positively correlated with prestige ($r = 0.56$ for the leadership election measure; $r = 0.55$ for the hiring decision), but *negatively* correlated with dominance ($r = -0.41$ for the leadership election measure; $r = -0.37$ for the hiring decision). It will be interesting for future research to examine how high-intensity anger influences behavioral measures of status conferral that are likely to be driven more by dominance, such as the Lost on the Moon Exercise (Bottger, 1984; Cheng et al., 2013) or visual attention received by others (Cheng et al., 2013).

In addition, it is possible that observers make very different inferences when judging a target's *current* level of status as a function of their anger expression, compared to the status the target *should* be granted. High-status individuals are assumed to be less constrained by normative rules (see also Feshbach, 1967; Hollander, 1958; Tiedens et al., 2000); thus, if someone is violating a display rule by expressing extreme anger, it could actually *signal* that they are high status.

In Studies 3a-d, we demonstrate that the appropriateness of an anger expression moderates the effects of anger intensity on interpersonal perceptions and status conferral. In these studies, we manipulated anger appropriateness by manipulating the severity of harm that was caused to the target. Interestingly, although in Studies 3c-d, the effects of anger intensity disappeared when anger appropriateness was high, in Studies 3a-b, the effect of anger intensity were merely attenuated. Upon closer inspection of these scenarios (see Table 4), we see that in Studies 3a-b the harm was limited to the target (broken item; longer work hours), but in Studies 3c-d both the target and others were harmed. It is possible that differences in the nature of the harm might explain why we find different patterns of results across studies. Interestingly, the mean values in Table 7 suggest that in situations in which harm is caused not only to the target but to others as well (Studies 3c-d), expressing low anger is punished when anger appropriateness is high, indicating that people may be expected to express at least some anger in certain situations (e.g., to stand up for others). We encourage future scholars to investigate how characteristics of the situation, such as whether anger is expressed on behalf of the self or others, influence norms of emotion expression. We also encourage future scholars to investigate how people make attributions about intense emotion expressions. An exploratory study (see Study S3 in the Online Supplement), suggests that high-intensity anger is more likely to be attributed to internal versus external factors (Brescoll & Uhlmann, 2008), which could also influence interpersonal perception in interesting ways.

Most importantly, future research should contrast emotions at different levels of intensity. A substantial literature has drawn broad inferences by contrasting emotions (e.g., anger versus sadness), without considering how emotion intensity might influence these contrasts. For example, prior work has found that contempt has different interpersonal effects than anger (e.g., Melwani & Barsade, 2011; Melwani, Mueller, & Overbeck, 2012). Contempt, however, is a more intense emotion than anger (Melwani et al., 2012), and emotion intensity may account for some of the key differences prior work has documented. In our investigation, we found that the contrast between anger and sadness was very different across high and low levels of intensity, and we call for future work to revisit contrasts between emotions by accounting for emotion intensity.

12.2. Conclusion

Although mild expressions of anger may boost status, high levels of anger expressions harm status. We challenge prior work that has made broad claims about anger from a limited set of stimuli. When it comes to expressing anger, intensity matters.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jesp.2019.103876>.
Table A1 displays the content of the online supplement.

Section	Pages
Supplement 1: Study Materials	1-2
Supplement 2: Supplementary Summary Statistics and Analyses	3-5
Supplement 3: Supplementary Mediation Analyses	6-8
Supplement 4: Suspicion Coding and Analysis for Study 1	9-10
Supplement 5: Study S1 – Video Stimuli	11-14
Supplement 6: Study S2 – Female Targets	15-16
Supplement 7: Study S3 – Exploratory Measures	17-20

Appendix B. Links to the Pre-registrations of Studies 1, 2, 4, and S3

Study 1: <https://aspredicted.org/749dn.pdf>
 Study 2: <https://aspredicted.org/8r5er.pdf>
 Study 4: <https://aspredicted.org/xr72f.pdf>
 Study S3: <https://aspredicted.org/2e7td.pdf>

Appendix C. Leadership Election Task used in the Laboratory Session in Study 1

Adapted from Halevy et al. (2012). Each participant rated all other participants in their lab session (here exemplary for participants #3).

Leadership Survey

At the end of today's lab session you will be asked to engage in a group task with the other study participants in this room. For this group task, you will complete a group exercise in your group and you will compete against other groups from other lab sessions that take place today. Each member in the winning group will earn a \$5 bonus.

One person in each group will be elected as the group leader. That person will be in charge of the group and make decisions on the team members' behalf. You will elect the group leader by indicating your preference below.

Every person in this room will rate every other person. The person with the highest average rating will become the group leader and will guide your group in the competition, so please answer this question thoughtfully.

How much would you like to have each of the participants in your lab session as a group leader for the group task?

	Not at all						Very much
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Participant #1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant #2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant #4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant #5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant #6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix D. Leadership Election Task used on MTurk (Studies 2-4 and S1-S3)

Adapted from Halevy et al. (2012). Note that in Study 3d, the instructions were slightly different, as they did not contain as much detail on the position of the group leader, and in Study S1 (Video Study), the text referred to "the person from the video." For the exact wording of this task in each study, see the study materials available at this link: <https://osf.io/egtrb>.

Imagine that you were to engage in a group task with the person whose survey you saw and other study participants. For example, you may be assigned to a group of five MTurkers to complete a series of tests and team problem-solving exercises. One person in the group will be elected to the position of group leader. The group leader would be in charge of directing the group, allocating tasks, and rewarding team members for their contributions. The group leader will be elected based on the judgments of other group members.

The person you just learned about - who filled out the survey that you just saw - will be assigned to your group.

Please indicate using the scale below how much you would like this person to be your group leader. Imagine that the person with the highest average rating will become the group leader.

How much would you like to have the person whose survey you saw as your group leader?

[Not at all (1) – Very much (7)]

Appendix E. Hiring Decision used on MTurk (Studies 2-4 and S1-S3)

Adapted from Tiedens, Ellsworth, & Mesquita (2000). The items were presented to participants in random order. In Study S1 (Video Study), the text referred to “the person from the video” (see also <https://osf.io/egtrb>).

Imagine you were to hire the person whose survey you just saw for a job within your organization. Please answer the questions below.

How much <u>power</u> should this person have?	[None (1) – A lot (7)]
How much <u>status</u> should this person have?	[None (1) – A lot (7)]
How much <u>independence</u> should this person have?	[None (1) – A lot (7)]
How much <u>rank</u> should this person have?	[None (1) – A lot (7)]

References

- Adam, H., & Brett, J. M. (2018). Everything in moderation: The social effects of anger depend on its perceived intensity. *Journal of Experimental Social Psychology, 76*, 12–18.
- Ames, D. R., & Flynn, F. J. (2007). What breaks a leader: The curvilinear relation between assertiveness and leadership. *Personality Processes and Individual Differences, 92*(2), 307–324.
- Anderson, C., Brion, S., Moore, D. A., & Kennedy, J. A. (2012). A status-enhancement account of overconfidence. *Journal of Personality and Social Psychology, 103*(4), 718–735.
- Anderson, C., Hildreth, J. A. D., & Howland, L. (2015). Is the desire for status a fundamental human motive? A review of the empirical literature. *Psychological Bulletin, 141*(3), 574–601.
- Anderson, C., John, O. P., Keltner, D., & Krug, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and Social Psychology, 81*(1), 116–132.
- Anderson, C., & Kilduff, G. J. (2009). The pursuit of status in social groups. *Current Directions in Psychological Science, 18*(5), 295–298.
- Anderson, C., Kraus, M. W., Galinsky, A. D., & Keltner, D. (2012). The local-ladder effect: Social status and subjective well-being. *Psychological Science, 23*(7), 764–771.
- Banse, R., & Scherer, K. R. (1996). Acoustic profiles in vocal emotion expression. *Journal of Personality and Social Psychology, 70*(3), 614–636.
- Barasch, A., Levine, E. E., Berman, J. Z., & Small, D. A. (2014). Selfish or selfless? On the signal value of emotion in altruistic behavior. *Journal of Personality and Social Psychology, 107*(3), 393–413.
- Barasch, A., Levine, E. E., & Schweitzer, M. (2016). Bliss is ignorance: How the magnitude of expressed happiness influences perceived naiveté and interpersonal exploitation. *Organizational Behavior and Decision Processes, 137*, 184–206.
- Barkow, J. H. (1975). Prestige and culture: A biosocial interpretation. *Current Anthropology, 16*(4), 553–572.
- Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology, 74*(5), 1252–1265.
- Berger, J., Cohen, B. P., & Zelditch, M., Jr. (1972). Status characteristics and social interaction. *American Sociological Review, 37*(3), 241–255.
- Berkowitz, L. (1990). On the formation and regulation of anger and aggression: A cognitive-neoassociationistic analysis. *American Psychologist, 45*(4), 494–503.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Bodenhausen, G. V., Sheppard, L. A., & Kramer, G. P. (1994). Negative affect and social judgment: The differential impact of anger and sadness. *European Journal of Social Psychology, 24*(1), 45–62.
- Botting, P. C. (1984). Expertise and air time as bases of actual and perceived influence in problem-solving groups. *Journal of Applied Psychology, 69*(2), 214–221.
- Brescoll, V. L., & Uhlmann, E. L. (2008). Can an angry woman get ahead? Status conferral, gender, and expression of emotion in the workplace. *Psychological Science, 19*(3), 268–275.
- Cabral, J. C. C., Tavares, P. D. S., & de Almeida, R. M. M. (2016). Reciprocal effects between dominance and anger: A systematic review. *Neuroscience and Biobehavioral Reviews, 71*, 761–771.
- Cheng, J. T., & Tracy, J. L. (2014). Toward a unified science of hierarchy: Dominance and prestige are two fundamental pathways to human social rank. In J. T. Cheng, J. L. Tracy, & C. Anderson (Eds.), *The psychology of social status* (pp. 3–27). New York, NY: Springer.
- Cheng, J. T., Tracy, J. L., Foulsham, T., Kingstone, A., & Henrich, J. (2013). Two ways to the top: Evidence that dominance and prestige are distinct yet viable avenues to social rank and influence. *Journal of Personality and Social Psychology, 104*(1), 103–125.
- Cheng, J. T., Tracy, J. L., & Henrich, J. (2010). Pride, personality, and the evolutionary foundations of human social status. *Evolution and Human Behavior, 31*(5), 334–347.
- Clark, M. S., Pataki, S. P., & Carver, V. (1996). Some thoughts and findings on self-presentation of emotions in relationships. In G. J. O. Fletcher, & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 247–274). Mahwah, NJ: Erlbaum.
- Diefendorff, J. M., & Greguras, G. J. (2009). Contextualizing emotional display rules: Examining the roles of targets and discrete emotions in shaping display rule perceptions. *Journal of Management, 35*(4), 880–898.
- Dunn, J. R., & Schweitzer, M. E. (2005). Feeling and believing: The influence of emotion on trust. *Journal of Personality and Social Psychology, 88*(5), 736–748.
- Ekman, P. (1993). Facial expression and emotion. *American Psychologist, 48*(4), 384–392.
- Ekman, P., & Friesen, W. V. (1969). The repertoire of nonverbal behavior: Categories, origins, usage, and coding. *Semiotica, 1*(1), 49–98.
- Ekman, P., & Friesen, W. V. (1971). Constants across cultures in the face and emotion. *Journal of Personality and Social Psychology, 17*(2), 124–129.
- Ellis, L. (1994). Social stratification and socioeconomic inequality. *Reproductive and interpersonal aspects of dominance and status. Vol. 2*. Westport, CT: Praeger.
- Feshbach, N. D. (1967). Nonconformity to experimentally induced group norms of high-status versus low-status members. *Journal of Personality and Social Psychology, 6*(1), 55–63.
- Filipowicz, A., Barsade, S., & Melwani, S. (2011). Understanding emotional transitions: The interpersonal consequences of changing emotions in negotiations. *Journal of Personality and Social Psychology, 101*(3), 541–556.
- Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences, 11*(2), 77–83.
- Flynn, F. J., Reagans, R. E., Amanatullah, E. T., & Ames, D. R. (2006). Helping one's way to the top: Self-monitors achieve status by helping others and knowing who helps whom. *Journal of Personality and Social Psychology, 91*(6), 1123–1137.
- Frijda, N. H. (1986). *The emotions: Studies in emotion and social interaction*. Paris, FR: Maison de Sciences de l'Homme and Cambridge, 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, 57*(2), 212–228.
- Frijda, N. H., Ortony, A., Sonnemans, J., & Clore, G. L. (1992). The complexity of intensity: Issues concerning the structure of emotion intensity. In M. S. Clark (Vol. Ed.), *Emotion: Review of Personality and Social Psychology, 13. Emotion: Review of Personality and Social Psychology* (pp. 60–89). Newbury Park, CA: Sage.
- Gallois, C. (1993). The language and communication of emotion. *American Behavioral Scientist, 36*(3), 309–338.
- Geddes, D., & Callister, R. R. (2007). Crossing the line(s): A dual threshold model of anger in organizations. *Academy of Management Review, 32*(3), 721–746.
- Gibson, D. E., & Callister, R. R. (2010). Anger in organizations: Review and integration. *Journal of Management, 36*(1), 66–93.
- Gibson, D. E., Schweitzer, M., Callister, R. R., & Gray, B. (2009). The influence of anger expressions on outcomes in organizations. *Negotiation and Conflict Management Research, 2*(3), 236–262.
- Grandey, A. A. (2000). Emotional regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology, 5*(1), 95–110.
- Grant, A. M., & Schwartz, B. (2011). Too much of a good thing: The challenge and opportunity of the inverted U. *Perspectives on Psychological Science, 6*(1), 61–76.
- Gruber, J., Mauss, I. B., & Tamir, M. (2011). A dark side of happiness? How, when, and why happiness is not always good. *Perspectives on Psychological Science, 6*(3), 222–233.
- Halevy, N., Chou, E. Y., Cohen, T. R., & Livingston, R. W. (2012). Status conferral in intergroup social dilemmas: Behavioral antecedents and consequences of prestige and dominance. *Journal of Personality and Social Psychology, 102*(2), 351–366.
- Hardy, C. L., & van Vugt, M. (2006). Nice guys finish first: The competitive altruism hypothesis. *Personality and Social Psychology Bulletin, 32*, 1402–1413.
- Hareli, S., Shomrat, N., & Hess, U. (2009). Emotional versus neutral expressions and perceptions of social dominance and submissiveness. *Emotion, 9*(3), 378–384.
- Harker, L., & Keltner, D. (2001). Expressions of positive emotion in women's college yearbook 34 pictures and their relationship to personality and life outcomes across adulthood. *Journal of Personality and Social Psychology, 80*(1), 112–124.
- Harmon-Jones, E., & Sigelman, J. (2001). State anger and prefrontal brain activity: Evidence that insult-related relative left-prefrontal activation is associated with experienced anger and aggression. *Journal of Personality and Social Psychology, 80*(5), 797–803.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: The Guilford Press.
- Hess, U., Blairy, S., & Kleck, R. E. (2000). The influence of expression intensity, gender, and ethnicity on judgments of dominance and affiliation. *Journal of Nonverbal Behavior, 24*(4), 265–283.
- Hess, U., Adams, R. B., & Kleck, R. E. (2005). Who may frown and who should smile? Dominance, affiliation, and the display of happiness and anger. *Cognition and Emotion, 19*(4), 515–536.
- Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. Berkeley, CA: University of California Press.
- Hollander, E. P. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review, 65*, 179–196.

- 65(2), 117–127.
- Kassinove, H., Roth, D., Owens, S. G., & Fuller, J. R. (2002). Effects of trait anger and anger expression style on competitive attack responses in a wartime prisoner's dilemma game. *Aggressive Behavior*, 28(2), 117–125.
- Keating, C. F. (1985). Human dominance signals: The primate in us. In S. L. Ellyson, & J. F. Dovidio (Eds.), *Power, dominance, and nonverbal behavior* (pp. 89–108). New York, NY: Springer.
- Keltner, D., Ellsworth, P. C., & Edwards, K. (1993). Beyond simple pessimism: Effects of sadness and anger on social perception. *Journal of Personality and Social Psychology*, 64(5), 740–752.
- Kennedy, J. A., Anderson, C., & Moore, D. A. (2013). When overconfidence is revealed to others: Testing the status-enhancement theory of overconfidence. *Organizational Behavior and Human Decision Processes*, 122(2), 266–279.
- Knutson, B. (1996). Facial expressions of emotion influence interpersonal trait inferences. *Journal of Nonverbal Behavior*, 20(3), 165–182.
- Labott, S. M., Martin, R. B., Eason, P. S., & Berkey, E. Y. (1991). Social reactions to the expression of emotion. *Cognition and Emotion*, 5(5–6), 397–417.
- Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford, UK: 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(9), 1209–1221.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, 81(1), 146–159.
- Levine, E. E., & Wald, K. (2019). **Fibbing about your feelings: How feigning happiness in the face of personal hardship affects trust.** *Organizational Behavior and Human Decision Processes* <https://doi.org/10.1016/j.obhdp.2019.05.004>.
- Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2(1), 351–398.
- Maner, J. K., & Case, C. R. (2016). Dominance and prestige: Dual strategies for navigating social hierarchies. In J. Olson, & M. Zanna (Vol. Eds.), *Advances in experimental social psychology*. Vol 54. *Advances in experimental social psychology* (pp. 129–180). San Diego, CA: Elsevier Academic Press Ch3.
- Marmot, M. (2004). *Status syndrome: How social standing directly affects your health and life expectancy*. New York, NY: Macmillan.
- Matsumoto, D., Yoo, S. H., Hirayama, S., & Petrova, G. (2005). Development and validation of a measure of display rule knowledge: The display rule assessment inventory. *Emotion*, 5(1), 23–40.
- Melwani, S., & Barsade, S. G. (2011). Held in contempt: The psychological, interpersonal, and performance consequences of contempt in a work context. *Journal of Personality and Social Psychology*, 101(3), 503–520.
- Melwani, S., Mueller, J., & Overbeck, J. (2012). Looking down: The influence of contempt and compassion on emergent leadership categorizations. *Journal of Applied Psychology*, 97(6), 1171–1185.
- Olekals, M., & Druckman, D. (2014). With feeling: How emotions shape negotiation. *Negotiation Journal*, 30(4), 455–478.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. Cambridge, UK: Cambridge University Press.
- Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of Management Journal*, 44(5), 1018–1027.
- Quigley, B. M., & Tedeschi, J. T. (1996). Mediating effects of blame attributions on feelings of anger. *Personality and Social Psychology Bulletin*, 22(12), 1280–1288.
- Rafaeli, A., & Sutton, R. (1987). Expression of emotion as part of the work role. *Academy of Management Review*, 12(1), 23–37.
- Rees, L., Rothman, N. B., Lehavy, R., & Sanchez-Burkes, J. (2013). The ambivalent mind can be a wise mind: Emotional ambivalence increases judgment accuracy. *Journal of Experimental Social Psychology*, 49(3), 360–367.
- Rothman, N. B. (2011). Steering sheep: How expressed emotional ambivalence elicits dominance in interdependent decision-making contexts. *Organizational Behavior and Human Decision Processes*, 116(1), 66–82.
- Rothman, N. B., & Melwani, S. (2017). Feeling mixed, ambivalent, and in flux: The social functions of emotional complexity for leaders. *Academy of Management Review*, 42(2), 259–282.
- Rothman, N. B., & Northcraft, G. (2015). Unlocking integrative potential: Expressed emotional ambivalence and negotiation outcomes. *Organizational Behavior and Human Decision Processes*, 126, 65–76.
- Rothman, N. B., Pratt, M. G., Rees, L., & Vogus, T. J. (2017). Understanding the dual nature of ambivalence: Why and when ambivalence leads to good and bad outcomes. *Academy of Management Annals*, 11(1), 33–72.
- Scherer, K. R. (1999). Appraisal theories. In T. Dalgleish, & M. Power (Eds.), *Handbook of cognition and emotion* (pp. 637–663). Chichester, UK: Wiley.
- Shariff, A. F., & Tracy, J. L. (2009). Knowing who's boss: Implicit perceptions of status from the nonverbal expression of pride. *Emotion*, 9(5), 631–639.
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48(4), 813–838.
- Szurek, L., Monin, B., & Gross, J. J. (2012). The Stranger effect: The rejection of affective deviants. *Psychological Science*, 23(10), 1105–1111.
- Tice, D. M., & Bratslavsky, E. (2000). Giving in to feel good: The place of emotion regulation in the context of general self-control. *Psychological Inquiry*, 11(3), 149–159.
- 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(1), 86–94.
- 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(5), 560–575.
- Tiedens, L. Z., & Linton, S. (2001). Judgment under emotional certainty and uncertainty: The effects of specific emotions on information processing. *Journal of Personality and Social Psychology*, 81(6), 973–988.
- Van Kleef, G. A., & Côté, S. (2007). Expressing anger in conflict: When it helps and when it hurts. *Journal of Applied Psychology*, 92(6), 1557–1569.
- Van Kleef, G. A., De Dreu, C. K., & Manstead, A. S. (2004). The interpersonal effects of anger and happiness in negotiations. *Journal of Personality and Social Psychology*, 86(1), 57–76.
- Van Kleef, G. A., Wanders, F., Stamkou, E., & Homan, A. C. (2015). The social dynamics of breaking the rules: Antecedents and consequences of norm-violating behaviour. *Current Opinion in Psychology*, 6, 25–31.
- Wallbott, H. G. (1998). Bodily expressions of emotion. *European Journal of Social Psychology*, 28(6), 879–896.
- Wang, L., Northcraft, G., & Van Kleef, G. A. (2012). Beyond negotiated outcomes: The hidden costs of anger expression in dyadic negotiation. *Organizational Behavior and Human Decision Processes*, 119(1), 54–63.
- Willer, R. (2009). Groups reward individual sacrifice: The status solution to the collective action problem. *American Sociological Review*, 74(1), 23–43.
- Wiltermuth, S. S. (2009). Dominance complementarity and group creativity. In E. Mannix, J. Goncalo, & M. Neale (Vol. Eds.), *Research on managing groups and teams: Creativity in groups*. Vol. 12. *Research on managing groups and teams: Creativity in groups* (pp. 87–110). Bingley, UK: Emerald.
- Wiltermuth, S. S., Tiedens, L. Z., & Neale, M. A. (2015). The benefits of dominance complementarity in negotiations. *Negotiations and Conflict Management Research*, 8(3), 194–209.
- Wolf, E. B., Lee, J. J., Sah, S., & Brooks, A. W. (2016). Managing perceptions of distress at work: Reframing emotion as passion. *Organizational Behavior and Human Decision Processes*, 137(2016), 1–12.
- Yip, J. A., & Schweitzer, M. E. (2016). Mad and misleading: Incidental anger promotes deception. *Organizational Behavior and Human Decision Processes*, 137(2016), 207–217.
- Yip, J. A., & Schweitzer, M. E. (2019). Losing your temper and your perspective: Anger reduces perspective-taking. *Organizational Behavior and Human Decision Processes*, 150, 28–45.
- Zhou, H., & Fishbach, A. (2016). The pitfall of experimenting on the web: How unattended selective attrition leads to surprising (yet false) research conclusions. *Journal of Personality and Social Psychology*, 111(4), 493–504.