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When scowling may be a good thing:

The influence of anger expressions on credibility

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### Abstract

Emotion displays do not only signal emotions but also have social signal value. A study was conducted to test the hypothesis that expressing anger when complaining may lead to positive outcomes for the complainant because anger signals goal obstruction and hence the presence of real harm. The results suggest that the social signal value of anger enhances the credibility of the complainant and hence leads to better compensation, but only when the complaint itself presents room for doubt. For highly justified complaints the additional expression of anger does not add information and is discounted. In contrast, showing an affiliative-smiling demeanor was found to enhance credibility for both types of complaints. Overall, the present research confirmed the important role of emotion expressions as social signals.

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When scowling may be a good thing: The influence of anger expressions on credibility

One of the most pervasive research questions in the psychology of emotions regards the perception of emotion expressions. Most of this research has focused on the decoder's ability to "get" the emotional message. In effect, investigations into the decoding process generally stop once an emotion label is affixed to the expression. In contrast, less attention has been devoted to the issue of the inferences that a decoder might draw from that label (Glaser & Salovey, 1998; Hess, Adams, & Kleck, 2008; Manstead, 1991). That is, this line of research often ignores the social implications of showing a certain emotion in a certain context.

Emotional expressions do not only express emotions, but also have social and communicative functions (e.g., Fridlund, 1991; Fridlund, 1994; Hareli & Rafaeli, 2008; Hess, Kappas, & Banse, 1995; Keltner & Haidt, 1999; Parkinson, 1996; Parkinson, Fischer, & Manstead, 2005), including the signaling of authenticity. Specifically, a communication that includes an emotional signal that matches the meaning of the verbal message will be perceived as more credible than an identical verbal message that does not include such a signal. The goal of the present research was to test this notion in the context of complaints accompanied by anger expressions.

The notion that emotional signals interact with verbal content with regard to the perceived credibility of a message is grounded in appraisal theory of emotion.

According to appraisal theories of emotion, emotions are elicited and differentiated

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through a series of appraisals of (internal or external) stimulus events according to the perceived nature of the event. Observers are aware of the "stories" that underlie emotions (Parkinson, 1999, 2001) and hence can 'reverse engineer' the relationship between the person and the event based on the emotion expressed (Frijda, 1986). This information then can serve to inform the observer about the person's actual experience of the situation and hence the credibility of their verbal message. Emotional signals that match the meaning of verbal messages amplify their perceived credibility, discrepancy between emotional and verbal message reduces credibility (cf. DePaulo et al., 2003). Even though in a given situation more than one expression is plausible and hence would not be perceived as discrepant -- for example, in case of a perceived injustice one may plausibly show either sadness or anger -- the specific emotion shown should have nonetheless divergent effects on the perceiver.

The factors that influence the credibility of statements have been most extensively studied in the context of eyewitness or victims' testimonies. Two studies, which investigated the impact of the emotional tone of the message in mock-jury studies, found that statements accompanied by situation congruent affect, rather than presented in a neutral or indifferent tone, were perceived as more credible (Golding, Fryman, Marsil, & Yozwiak, 2003; Kaufmann, Drevland, Wessel, Overskeid, & Magnussen, 2003). Yet, too much emotion also led to decreased credibility just as did too little (Golding et al., 2003). However, the studies reported above did not focus on

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discrete emotions, but rather on somewhat diffuse affect displays such as crying (Golding et al., 2003) or despair and sobs (Kaufmann et al., 2003). By contrast, in the present study we focus on the specific and contrasting signal value of discrete emotions.

One context in which credibility is a crucial concern and which is commonly accompanied by -- often strong -- emotions are complaints. The recipient of the complaint needs to take the validity of the complaint into account and complainants are often motivated by strong emotions to present a complaint. Since complaints are usually the result of some sort of goal obstruction, appraisal theories of emotion (Scherer, 1987) would predict anger to be most likely in this context. In fact, complaints are often motivated by anger (Bougie, Pieters, & Zeelenberg, 2003) and hence are often accompanied by anger expressions (Stephens & Gwinner, 1998).

There are two reasons to believe that anger increases the credibility of complaints. First, anger should be the most situation congruent emotion in this context, and hence, according to the logic described above, result in increased credibility. Further, anger is not only situation congruent but anger by itself communicates to others that damage was caused and someone was hurt, (Hareli & Katzir, 2002).

Nevertheless, there are also good reasons to expect that expressions of anger, even if they increase credibility, elicit negative reactions on the part of the recipient. First, anger is closely associated with hostility and aggression and hence considered to be socially undesirable (Parkinson et al., 2005). In addition, reactions of anger may also

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elicit anger in the recipient because perceivers match their reactions to those of others (Burgoon, Le Poire, & Rosenthal, 1995). In fact, people who express their dissatisfaction in a derogatory or otherwise negative manner are more likely to receive a hostile response from the target of the complaint (Grandey, Dickter, & Sin, 2004), whereas a non-threatening, nondestructive manner of complaining is more likely to be met with a constructive, supportive reception (Kowalski, 1996).

Finally, sadness may also impact on the perception of complaints. Specifically, sadness has a strong appeal function for the provision of succor (e.g., Averill, 1968; Frijda & Mesquita, 1994). Thus, presenting a complaint with a sad demeanor may solicit helping behavior from participants.

However, it is important to consider that the emotional tone of a complaint will only have an effect on the recipient to the extent that recipients are attentive to these expressions (van Kleef, De Dreu, & Manstead, 2004a, 2004b). In addition, not everyone perceives a given emotion expression in the same way. Even such very extreme stimuli as the Pictures of Facial Affect (Ekman & Friesen, 1976) are not recognized by 100% of participants (Elfenbein & Ambady, 2002) and this is even more so when ecologically valid stimuli appropriate for a complaint are used. Accordingly, in the present study we assessed the effect of observer's *perception* of the emotional tone of the message.

In sum, we predict that presenting a complaint with an angry demeanor enhances its credibility because the anger message parallels and hence supports the

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verbal complaint message. However, anger may also entrain social punishment because it is perceived as inappropriate. Increased credibility, therefore, may not lead to higher compensation due to the fact that the angry complainant is punished for expressing an inappropriate emotion. By contrast, showing sadness or an affiliative demeanor may not increase credibility but could nonetheless lead to higher compensation either because of the appeal for help implicit in sadness (Averill, 1968; Frijda & Mesquita, 1994) or because the complainant is perceived as cooperative (Kowalski, 1996).

Figure 1 shows the conceptual model that was assessed. Specifically, we assume that perceived emotional tone of the complaint influences the degree to which the observer believes that harm was indeed done – damage credibility. Damage credibility mediates both the effect of perceived emotion expression on perceptions of suffering credibility and – indirectly through suffering credibility – on compensation. Since the independent variable is an individual difference variable and two levels of mediation were assessed, structural equation modeling was used to test the model described in Figure 1, following Baron and Kenny (1986).

## OVERVIEW

We used audio-visual records, which showed two men and two women who uttered a complaint using different emotional tones. In addition, we manipulated the situational context. Specifically, some situations are obviously undesirable and hence not much persuasion should be needed to justify such a complaint. Other complaints

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may be more ambiguously justified and it may not be immediately obvious that compensation is warranted. We predict that anger is more relevant to establishing credibility when the complaint is ambiguously justified. In contrast, we expected that sadness might increase credibility for suffering and hence the likelihood that participants receive compensation, especially if the complaint dealt with a serious, that is, highly justified, problem, which is likely to cause distress to the complainant and justifies an appeal for help signaled by sadness.

As an affiliative-smiling stance should signal cooperative intent it may increase at least suffering credibility. That is, the participant should assume that the complainant is complaining in good faith and really experienced harm at least in their own eyes. Thus, the effect of an affiliative-smiling stance should not depend on the justifiability of the complaint.

## Method

### *Participants.*

A total of 178 women and 178 men with a mean age of 27 years ( $SD = 7.2$ ) participated in groups of 8 to 12. Participants were recruited via an email recruiting system; they received a compensation of \$10. All participants were fluent in French.

### *Material.*

The two complaints concerned a broken refrigerator and a misprinted poster and were chosen based on a pretest. For the refrigerator, the ambiguously justified

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complaint stated that the complainant felt that the technician had not checked other issues after having made an initial repair such that two days later the fan broke, whereas for the highly justified condition the complainant stated that s/he had explicitly asked for the fan to be verified, but nonetheless it broke two days later. For the poster, the ambiguously justified complaint stated the text was after the fact considered to be too small after all, whereas in the high justifiability condition, the background color was not as had been previously specified. Each complaint was enacted by two men and two women who always presented the same verbatim but showed either an angry, sad, or affiliative-smiling demeanor.

### *Procedure*

Participants were seated in groups of 8 to 12 in individual cubicles and told to assume the role of a customer service agent. They then watched the complaints. To increase ecological validity participants had the option to ask further questions by clicking a button corresponding to the question. They then were shown a video with the appropriate responses of the client before choosing a compensation. The answers were provided in the same emotional tone as the initial complaint. Eighty five percent of the time at least one additional question was asked. Participants asked more questions about ambiguously ( $M = 2.72, SD = 1.88$ ) than about highly justified complaints ( $M = 2.32, SD = 1.74$ ),  $F(1,344) = 4.26, p = .040$ . Importantly, no difference in the number of questions asked was found as a function of emotional demeanor.

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Following an initial training session to familiarize participants with the video interface, each participant randomly treated two of the 48 possible complaints which varied in level of justifiability, emotion expression and sex of actor, allowing us to treat the data in a between subjects design.

### *Dependent measures*

Compensation levels were ordinal-scaled choices ranging from: “we are sorry for the inconvenience, but there is nothing we can do” over a series of partial compensations, to full financial compensation and negative consequences for the employee who had caused the problem.

Participants further rated the degree to which they believed that the complainant had described real damage (damage credibility), and that the issue in question really caused a problem for the client, thereby justifying the complaint (suffering credibility). In addition, they rated the level of justifiability of the complaint, that is, the degree to which the complaint was not frivolous or strategic, this variable was used as a manipulation check. Damage and suffering credibility were rated on scales anchored with -3 - I totally disagree to +3 - I totally agree. The degree of justifiability was rated on a continuous scale ranging from 1 to 100.

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### *Perceived emotions*

Following this, participants responded to a series of questions, regarding the perceived emotions and attitudes of the client, which they rated on the scales: angry, sad, and affiliative. All scales were anchored with 0 – "not at all" and 6 – "very much".<sup>1</sup>

## Results and Discussion

### *Manipulation checks*

*Complaint justification.* Perceived justifiability was used to assess whether the justifiability manipulation was successful. The results suggested that this was the case for the refrigerator complaint ( $M = 43.90$ ,  $SD = 32.42$  versus  $M = 70.24$ ,  $SD = 25.71$ ,  $t(354) = 8.46$ ,  $p < .001$ ). However, for the poster complaint, the difference in justifiability, albeit significant due to the large N, was less than 10 points. This was not considered sufficient for an adequate manipulation of this important variable. Hence, these data were dropped from the following analyses.

*Perceived emotion.* For each of the three relevant emotion variables (anger, sadness and affiliation) a one-way ANOVA with the factor emotion was conducted. Angry complainants were rated as showing significantly more anger ( $M = 5.44$ ,  $SD = .96$ ) than both sad ( $M = 2.57$ ,  $SD = 1.72$ ) and affiliative-smiling complainants ( $M = 1.72$ ,  $SD = 1.61$ ),  $F(2,244) = 144.37$ ,  $p < .001$ . Sad complainants were rated as showing significantly more sadness ( $M = 2.85$ ,  $SD = 1.96$ ) than were both affiliative-smiling ( $M = 1.48$ ,  $SD = 1.69$ ) and angry complainants ( $M = 1.23$ ,  $SD = 1.88$ ),  $F(2, 244) = 18.41$ ,  $p < .001$ . Finally, both

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affiliative-smiling ( $M = 1.87, SD = 1.61$ ) and sad complainants ( $M = 1.75, SD = 1.82$ ) were perceived as affiliative, whereas angry complainants were not ( $M = .23, SD = .76$ ),  $F(2, 244) = 31.52, p < .001$ . This latter finding is in accordance with findings by Knutson (1996) as well as Hess, Blairy, and Kleck (2000) regarding the level of affiliation signaled by different emotion expressions.

### *Initial analyses*

A multivariate analysis of variance was conducted on the two credibility variables. A main effect of complaint justification emerged,  $F(2,234) = 23.29, p < .001$ , which was univariately significant for suffering credibility only,  $F(1, 235) = 41.33, p < .001$ . Specifically, ambiguously justified complaints were rated as less credible ( $M = .18, SD = 2.08$ ) than highly justified complaints ( $M = 1.67, SD = 1.52$ ). As predicted, the interaction between level of legitimacy and emotion was marginally significant,  $F(4, 470) = 2.311, p = .057$ . This effect was univariately significant,  $F(2, 235) = 3.50, p = .032$ , for suffering credibility only. Post-hoc tests on *suffering credibility* showed that when the complaint was ambiguously justified, complaints presented with an angry demeanor were perceived as more credible than complaints presented with a sad demeanor. Affiliatively presented complaints did not differ in credibility from either angry or sad complaints. By contrast, highly justified complaints presented with an angry demeanor were rated as less credible than were complaints presented affiliatively or with a sad demeanor (see Table 1).

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To assess the impact of the emotion expression on compensation, which was measured on an ordinal scale, we conducted Kruskal-Wallis ANOVAs separately for the two levels of complaint justification. For the ambiguously justified complaints, the mean ranking was 71.85 for angry complaints and 64.51 and 57.93 for affiliative and sad complaints. For the highly justified complaints, as was the case for credibility, the ranking was reversed with 53.68 for angry complaints and 62.90 and 63.81 for affiliative and sad complaints. None of the Chi<sup>2</sup> tests was significant.

In sum, as predicted, emotion expression influenced judgments of credibility, yet this effect was moderated by the level of justification of the complaint. When the complaint is highly justified, anger expressions reduced credibility compared to an affiliative or sad stance, that is, anger is counterproductive. Yet, as predicted, when the complaint was ambiguously justified anger expressions increased credibility.

### *Hypothesis testing*

The findings from the initial analysis were overall in line with predictions. However, as mentioned above, it is the *perception* by the individual participants of the client demeanor that is relevant, not the group level perceptions. Therefore we tested our hypotheses by investigating the impact of the individual perceptions on credibility in a structural equation model.

The model described in Figure 1 was tested separately for highly and ambiguously justified complaints (see Figure 2). Both models were found to have

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excellent fit ( $X^2_{(3)} = 0.21, p = .999, CFI = 1.00, RMSEA = .000$  for ambiguously justified complaints and  $X^2_{(3)} = 0.29, p = .961, CFI = 1.00, RMSEA = .000$ ) for highly justified complaints.

For ambiguously justified complaints perceived anger significantly influenced damage credibility and the impact of perceived anger on suffering credibility was fully mediated through damage credibility. In turn, suffering credibility influenced the level of compensation. By contrast, there was no impact of perceived anger on credibility for highly justified complaints. As mentioned above, this may be because by definition, whether harm was done to the complainant was less clear for the ambiguously justified complaint and hence the anger signal – that harm was done – enhanced the complainant's message and swayed the participants towards accepting the claim as objectively valid. Conversely, highly justified complaints describe a clear harm situation. In this case, the complainant's anger may be considered inappropriate and aggressive.

As predicted, perceived affiliation was positively related to credibility for both levels of justifiability. However, the effect on suffering credibility was fully mediated through damage credibility. As affiliation signals cooperative intent, credibility and hence a presumption of trustworthiness this expression adds information because it provides information about the relationship between the complainant and the recipient of the complaint. In a good-faith relationship messages should be perceived as

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inherently credible. As the effects of emotion expression on suffering credibility seem fully mediated through the effect on damage credibility, no direct effect on suffering credibility can be observed. This mediating effect could not be detected using MANOVA, where only the effect on the distal variable emerged as significant.

Contrary to expectations, and the results of the MANOVAs, sadness did not have any impact on either damage or suffering credibility. We had expected sadness to have an impact because it signals goal obstruction and has a strong appeal function for help. However, sadness also signals that the loss is seen as irrevocable (Lazarus, 1991). The latter is incongruent with a demand for redress. The present finding seems to suggest that this latter informational aspect of sadness overrides its appeal function.

## Conclusions

The present findings support the notion that when the emotion expression add new information to the verbal message it can affect the persuasiveness of the overall message and thereby credibility. It is noteworthy, that the results of the MANOVA and the structural equation results diverge somewhat. Specifically, in the MANOVA results significant effects emerged only for suffering credibility. This is the case for two reasons. First, the MANOVA design is incapable of assessing a nested mediation model such as the one tested in this study and the variance shared between the dependent variable and the mediating variable will not necessarily be attributed equally to both. More importantly, our predictions were based on the individual level perceptions of the

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situation. The structural equation approach is uniquely suited to properly assess such an idiographic hypothesis.

In sum, the present findings suggest that the emotional state that a complainant is perceived to experience has important informative value. Anger can bolster a claim because it signals the presence of a real goal obstruction. This complements the verbal complaint information and thereby enhances credibility. However, it only does so when the complaint itself leaves some room for doubt. By contrast, an affiliative demeanor signals cooperation and thereby increases trustworthiness regardless of how well justified the complaint is. In this case the emotion expression signals a friendly and cooperative intention, something not expressed in the verbal message. Thus, the present findings underline that emotion expressions not only signal emotions, but that the emotions signaled have an important social function which impacts on the receiver over and above the realization that the interaction partner is angry or not. That is, emotion perception does not end in recognition – in real social situations it starts with recognition. The present study also shows that emotion recognition is an individual level phenomenon, people differ in what they see in any given expression and these differences will impact on their judgments and further actions as well.

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### Footnotes

<sup>i</sup> In addition, participants rated the degree to which the complainant appeared happy, indifferent, affirmative, aggressive, self-assured, and authoritarian. They also reported on their own emotional state using the scales angry, frustrated, irritated, sad, happy, disgusted, ashamed, guilty on scales anchored with 0 - "not at all" and 100 "very much." These ratings will not be discussed in the presented context.

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*Table 1.* Means and standard deviations for credibility as a function of emotional demeanor and justifiability of the complaint

Demeanor	Damage credibility				Suffering credibility			
	Ambiguously justified		Highly justified		Ambiguously justified		Highly justified	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Angry	1.37	1.69	0.78	1.59	0.59	1.91	1.24	1.61
Affiliative	1.39	1.73	1.86	1.57	0.29	2.21	1.95	1.43
Sad	1.07	1.77	1.22	1.66	-0.28	2.05	1.83	1.44

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### *Figure Captions*

Figure 1. Theoretical model

Figure 2. Mediation models

Figure 1

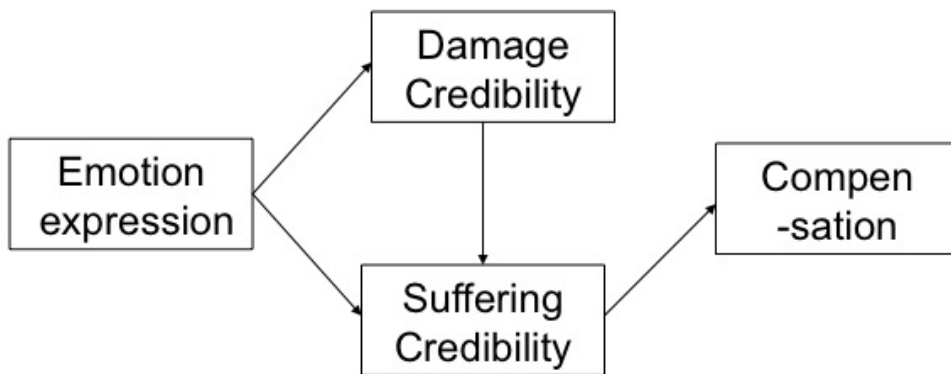
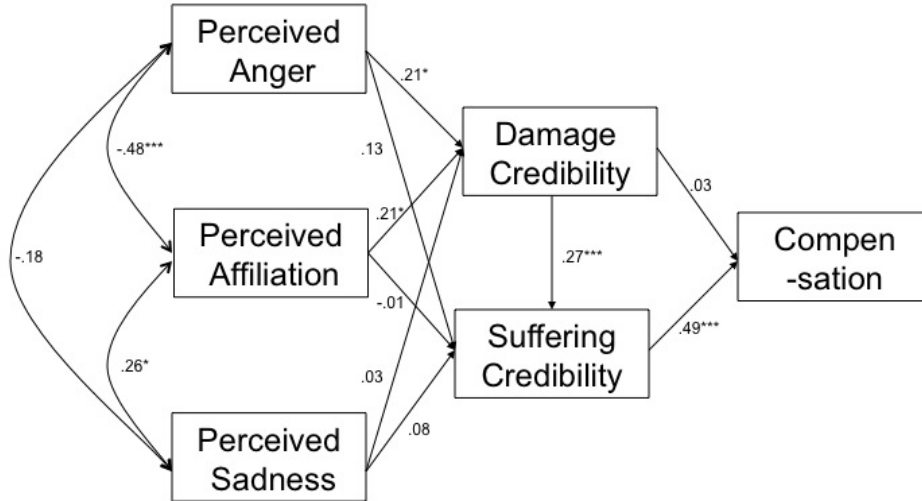


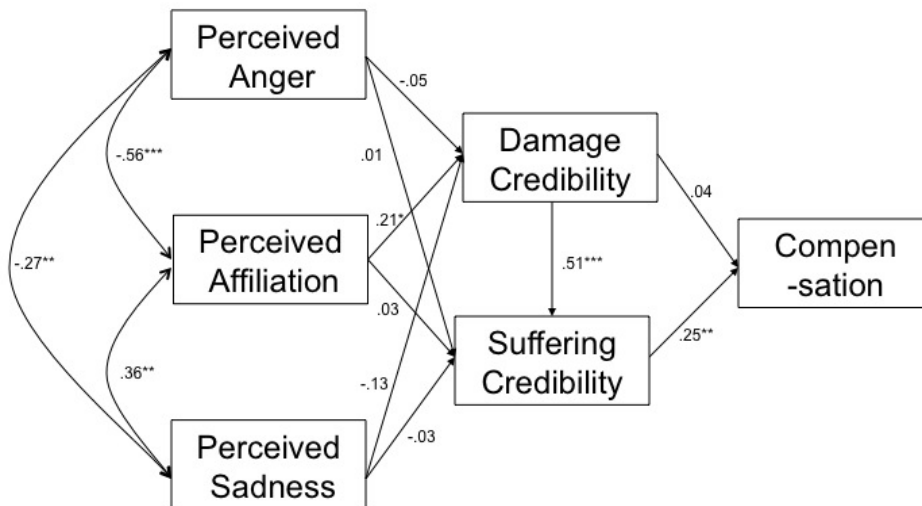
Figure 2

Ambiguously justified complaint



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

Highly justified complaint



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