Affective Match: Leader Emotional Displays, Follower Positive Affect, and Follower Performance

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ABSTRACT AND KEYWORDS	
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Abstract

Leader emotions may play an important role in leadership effectiveness. Extending this earlier research on leader emotional displays and leadership effectiveness, we propose that the "affective match" between follower positive affect (PA) and leaders' emotional displays moderates the effectiveness of leader emotional displays. Leader display of emotions has more positive effects on follower behavior if the match between the valence of leader emotion and follower PA is strong rather than weak. Support for this hypothesis was found in two experiments. The congruency between leader emotional displays and follower PA determined follower task performance and extra-role compliance. Results from the second experiment indicated that this effect is due to the affective aspects of leader behavior and not to the valence of the content of the message.

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Although the interest in leadership, affect, and emotions is increasing, empirical evidence for the role of affect in leadership processes is still scarce[1]. Recent studies have shown that leaders' affective displays may influence leadership effectiveness (e.g., Bono & Ilies, in press; George, 1995; Glomb & Hulin, 1997; Lord & Brown, 2004; Sy, Côté, & Saavedra, 2005), but at the same time suggest that this is not always the case (e.g., Lewis, 2000; Locke et al., 1991). In addition, some studies suggest that the display of positive affect may be more effective than the display of negative affect (Gaddis, Connelly, & Mumford, 2004; McColl-Kennedy & Anderson, 2002; Newcombe & Ashkanasy, 2002; cf. Martin, Ward, Achee, & Wyer, 1993), whereas other evidence suggests that the display of negative emotions may also be effective, or may even be more effective in influencing others than the display of positive emotions (Tiedens, 2001; cf. van Kleef, De Dreu, & Manstead, 2004a, 2004b).

Clearly, we still have limited understanding of the role of affect in leadership processes. Importantly, the somewhat muddled picture that arises from the literature seems to suggest that we may advance our understanding of the relative effectiveness of leader positive and negative emotional displays by looking at potential moderators. In the present study, we address this issue by investigating how follower characteristics may inform responses to leader affective displays. Specifically, we will be zooming in on the role of follower affective state as a moderator of the effectiveness of leader positive versus negative emotional displays in engendering follower task performance. We propose that leader emotional displays are more effective when there is a stronger "affective match" between leader affective display and follower affective state. We tested this affective match hypothesis in two experimental studies of leader emotional displays and follower performance.

Leader Emotional Displays and Leadership Effectiveness

There is an abundance of evidence indicating that affect is of major importance for human functioning. Indeed, affect strongly influences cognitive processes such as memory, imaging, attention, judgment, and planning (Damasio, 1994; Forgas, 1995; Williams, Watts, MacLeod, & Mathews, 1999). Additionally, people use both their own feelings and others' affective displays as informational input for the cognitive processes that are needed to interact successfully with each other (Damasio, 1994; Forgas, 2001; Frijda, 1986; Keltner & Haidt, 1999; Oatley & Jenkins, 1996). For instance, affective displays are argued to influence the interaction between individuals by providing vital information about other's feelings (Scherer, 1986), intentions (Fridlund, 1992), and orientation toward the relationship (Knutson, 1996). Affect is considered to shape social interaction in groups as well. For instance, affective displays are thought to build identification with the group (Keltner & Haidt, 1999), adjust behavior in the group (Cacioppo & Gardner, 1999), and define group boundaries (Frijda & Mesquita, 1994). Evidently, affect colors people's perception of the social world and plays an important role in social interaction (Oatley & Johnson-Laird, 1987; Schwarz & Clore, 1983).

Given the fact that affect is important for social interaction, it is perhaps not surprising that affect also plays a key role in organizational functioning. Indeed, evidence showing that affect plays a pervasive influence in organizations is accumulating (Brief & Weiss, 2002; George & Brief, 1996; Judge & Ilies, 2004; Lord, Klimoski, & Kanfer, 2002; Staw, Sutton, & Pelled, 1994; Weiss & Cropanzano, 1996). Affective displays for instance influence behavior in work teams (Barsade, 2002; George, 1990; Kelly & Barsade, 2001), negotiation settings (Carnevale & Isen, 1986; Van Kleef et al., 2004a, 2004b), sales representative-client interaction (Grandey, Fisk, Mattila, Jansen, & Sideman, 2005; Sutton & Rafaeli, 1988), and managerial processes (Staw & Barsade, 1993).

Affect has also been related more specifically to leadership effectiveness. The literature provides more anecdotal analyses of charismatic and transformational leadership suggesting that leadership effectiveness may in part derive from leaders' use of emotions (Ashkanasy & Tse, 2000; Awamleh & Gardner, 1999; Bass, 1998; Cherulnik, Donley, Wiewel, & Miller, 2001; Conger & Kanungo, 1998). Empirical tests of the relationship between leader emotional displays and influence on followers is still scarce, but the available evidence does support the conclusion that leaders' emotional displays affect leadership effectiveness. A number of studies have documented the positive effects of leader positive emotional displays (e.g., Bono & Ilies, in press; Damen, van Knippenberg, & van Knippenberg, 2003). Another body of empirical research focuses on the relative effectiveness of positive and negative emotional displays. Some of these studies suggest that the display of positive emotions is more effective than the display of negative emotions, possibly because the display of positive emotions signals more positive feedback than the display of negative emotions (Gaddis et al., 2004; McColl-Kennedy & Anderson, 2002; Newcombe & Ashkanasy, 2002; cf. Martin et al., 1993). However, Sy et al.'s (2005) findings, suggest that the relative effectiveness of positive and negative displays may be contingent on the indicator of leadership effectiveness in question. Their study, although a study of leader mood and not necessarily leader affective display, indicated that a leader in a positive mood compared with a leader in a negative mood produced more coordination among group members, but less effort on the group task. Other studies suggest that the display of negative affect can be effective as well, or even suggest that the display of negative emotions can be more effective than the display of positive emotions (Tiedens, 2001; cf. van Kleef et al., 2004a, 2004b). The available evidence thus suggests that both positive and negative emotional displays may at times add to leadership effectiveness. Yet, it is unclear what conditions influence the relative effectiveness of the display of positive versus negative emotions.

We may advance our understanding of the effects of leader emotional displays by looking at potential moderators of the effectiveness of the display of positive and negative emotions. Of course, the list of potential moderators is abundant, varying from contextual factors to, for instance, leader traits and conduct. However, as some researchers have noticed, in order to explain leadership effectiveness it may be wise to concentrate more on the follower (Lord & Brown, 2004). Indeed, there is no leadership without people following, and it is the followers' compliance, cooperation and endorsement that enables leaders to be effective. Unfortunately, leadership research has not really been focusing on follower characteristics so far (exceptions may for instance be found in work inspired by Meindl, 1995, or Lord, Foti, & De Vader, 1984). In the present study we shall focus on follower characteristics and we will work from the idea followers own affect and emotions may inform responses to leader affective displays.

It has been proposed that people use their own emotions and affective states as informational input in evaluating social situations (Bower, 1981; Forgas, 1995, 2001; Schwarz & Clore, 1983). Indeed, affect appears to color the way that the social world around us is perceived. More importantly, affective states influence the attention to, the evaluation of and the memory for affective stimuli (Blaney, 1986; Forgas, 1994; Singer & Salovey, 1988). Applying these insights to leadership processes, we may expect that follower affect informs responses to leadership behavior in general, and to leaders' emotional displays specifically. In the present study, we will focus on follower Positive Affect (Watson & Tellegen, 1985), and investigate whether it operates as a moderator of the effectiveness of leader positive versus negative emotional displays.

Follower Positive Affect and Leader Emotional Displays

Positive Affect (PA) "represents the extent to which one feels enthusiastic, active and alert" (Watson & Tellegen, 1985, p. 221; Watson, Clark, & Tellegen, 1988). This means that

people with high PA experience positive emotions and moods as for instance enthusiasm and excitement, while people with low PA do so to a lesser extent and experience feelings like sadness instead. PA has been shown to be an important moderating factor in predicting organizational attitudes and behavior (e.g., Anderson & Thompson, 2004; Barsade, Ward, Turner, & Sonnenfeld, 2000; Cropanzano, James, & Konovsky, 1993; Duffy, Ganster, & Shaw, 1998; Fortunato & Stone-Romero, 2001; Hochwarter, Kiewitz, Castro, Perrewé, & Ferris, 2003; Iverson & Deery, 2001; Judge & Ilies, 2004; Yoon & Thye, 2000). Importantly, PA may represent an affective trait dimension (referring to individual differences in positive affectivity), but may also refer to an affective state dimension (referring to a persons PA at a particular point in time). As we are particularly interested in the extent to which a follower's current mood state may inform responses to ongoing leader affective displays we focus on state PA instead of on trait PA.

Of particular relevance to the present analysis, are findings that suggest that PA may influence responses to affective stimuli. Bower's (1981) network theory implies that people may have stronger and a greater number of connections among emotional experiences that are congruent with their affective states. As a consequence, people's affective state invites mood congruent information processing and retrieval of information (Blaney, 1986; Forgas, 1994; 1995; Niedenthal & Showers, 1991; Singer & Salovey, 1988). Positive mood states, therefore, are thought to increase the accurate perception of positive stimuli and the tendency to make positive judgments and retrieve positive memories.

Gray's theory (1971, 1981, 1987), although a theory of affective traits more than a theory of affective states, also points to the possibility that follower affect may inform responses to affective stimuli. For instance, Gray posits that individual differences in impulsivity may account for the relative strengths of a motivational system that regulates behavior in the presence of signals of reward. As a consequence, some people may be more sensitive to

positive emotional stimuli than others (e.g., Lord et al., 2002). Likewise, other authors (Larsen & Ketelaar, 1991) also suggest that traits like extraversion make people more susceptible to positive affect and less susceptible to negative affect. Although these theories do not explicitly focus on PA, the high correlations between impulsivity/extraversion and state and trait PA may suggest that these theories are applicable to a wider range of affect related concepts (Rusting & Larsen, 1997, 1998; Zelinski & Larsen, 1999).

In sum, these combined perspectives suggest that individuals are more sensitive and open to experiences that are congruent with their own affective state. Importantly, there is also evidence for the idea that individuals have better relationships with, have more positive attitudes towards, and are more strongly persuaded by others that have a congruent affective state.

For instance, there is growing evidence that work groups function better when there is similarity of affect, especially trait PA (Barsade, 2002; Bartel & Saavedra, 2000; Bauer & Green, 1996; Totterdell, 2000). Barsade et al. (2000), for instance focused on the effects of the extent to which top management team members had similar levels of trait PA, and found that a match of affect between the managers in a team was associated with positive attitudes towards and perceptions of the team. In similar vein, Bauer and Green (1996) found that leader-follower relationships were better when leader and follower were similar in trait PA. Although these findings again do not concern state PA, these findings clearly hint at the possibility that leader affective displays may have positive effects when they match followers' affective state.

Research on affect and persuasion (e.g., Albarracín & Kumkale, 2003; DeSteno, Petty, Rucker, Wegener and Braverman, 2004; DeSteno, Petty, Wegener, & Rucker, 2000; Mackie & Worth, 1989) reveals comparable mood congruity effects. For instance, DeSteno et al. (2004) manipulated the mood of participants and found that a message was more persuasive

when it was likely to elicit similar affective responses. When the message was likely to trigger sadness, people induced with a sad mood were more likely to be persuaded than people in an angry or neutral mood. However, when the message was likely to elicit anger, people in an angry mood were more likely to be persuaded than neutral or sad participants. These findings thus suggest that leaders may be more influential when their affective displays match followers' affective state.

Thus, extrapolating the above findings to the present study one would expect that the relative fit between a leader's emotional display and follower PA influences the persuasiveness of the leader's influence attempt. More specifically, we propose that followers are more open to leaders' appeals if the valence of the leader's emotional display matches follower's level of PA more closely. Thus, for followers high in PA the match with leaders that display positive emotions (such as enthusiasm and happiness), is closer than the match with leaders that display negative emotions (such as sadness and anger). For followers that lack PA, the match with leaders that display positive emotions is weaker than the match with leaders that also seem to lack positive affect and display negative emotions instead. Thus, for followers high in PA, appeals accompanied by positive emotional displays are relatively more effective than appeals accompanied by negative emotional displays. For followers low in PA appeals accompanied by positive emotional displays are relatively less effective than appeals accompanied by negative emotional displays. We tested this hypothesis in two experiments. The first was designed to test our core prediction that leaders' emotional displays are more effective in engendering desired follower behavior when the valence of the display matches follower PA. The second was designed to replicate the core finding with another leader, and to establish that the predicted effect is driven by leaders' emotional display and not by the valence of the content of the message per se.

<div align="center">Study 1</div>

We manipulated leader's positive versus negative emotional display and added a measure of follower PA as a factor to the design. To manipulate emotional displays of the leader, we focused on anger and enthusiasm. Both anger and enthusiasm are clearly recognizable and reflect high levels of arousal. In addition, they are each other's opposites in terms of their pleasantness or valence (Larsen, Diener, & Lucas, 2002). Hence, anger is seen as a strong negative leader emotion, whereas enthusiasm is seen as a strong positive leader emotion. Furthermore, anger and enthusiasm are emotions that are broadly hypothesized as being important in leadership effectiveness (e.g., Fitness, 2000; Glomb & Hulin, 1997; Lewis, 2000; Lord et al., 2002; Tiedens, 2001). However, empirical evidence studying these two distinguished emotions (especially enthusiasm) in leadership is rather scarce and thus has particular relevance to our understanding of leadership effectiveness.

We assessed two behavioral indicators of leadership effectiveness: task performance and extra-role compliance. Although we expected to find the same pattern of results for both measures, it is nevertheless important to test this explicitly, because it cannot be assumed that in-role task performance and extra-role behavior are governed by the same processes (e.g., Motowidlo, Borman, & Schmit, 1997; Organ, 1990; Wright, George, Farnsworth, & McMahan, 1993). Therefore, the use of both measures may give us important information about the extent to which effects of leaders' affective displays generalize from task performance to extra-role behavior.

Method

Participants and Design

We recruited forty-seven first and second year business and economics students (mean age was 20.47 years, $SD = 2.04$; 55% of the participants were male). They received 10 euro (approximately $13) for participation in a study on "leadership and communication". The participants were randomly assigned to one of two conditions (Leader Emotion:

angry/enthusiastic). To measure Positive Affect (PA) we asked participants about how they were feeling at that moment for which we used nine items developed by Watson et al. (1988)[2]. By using a median split (*Mdn* = 2.89), we distinguished between participants high and low in PA and added this variable as a factor in the design (α = .90, *M* = 2.96, *SD* = .71). A test of the difference in PA between the two groups confirmed that people in the low PA group indeed scored lower (*M* = 2.34, *SD* = .51) on positive affect than people in the high PA group (*M* = 3.46, *SD* = .38), *t*(45) = -8.62, *p* < .0001, η^2 = .62.

Procedure

The participants were seated in separate cubicles with a personal computer, which was used to present all experimental materials and to collect all data. The participants were told that they were about to be supervised by a person who was introduced as a real-life executive of a big IT-company and who followed an "Executive Development Course" at the participants' university to perfect her management skills. They were told that this leader was present in another room and that a live video connection between them and the leader was established. It was explained that the aim of the research was "investigating how leaders communicate". Then a female leader appeared on everybody's computer screen and she introduced herself with her name. This leader was in fact a trained female actor who was taped earlier. To present participants with a leader that was not too dissimilar to them, we selected an actress who was relatively young (28 years). Also, the leader introduced herself as someone who had earned a MBA degree at participants' university some years ago. She told participants that she was asked, because of the course she followed, to manage the present group of participants. She then instructed participants to start task performance. The task simulated a computer retail store in which participants had to process preprogrammed customer requests (see dependent measures section). The leader attempted to motivate participants to do well in this task and specifically assigned them the goal to process as much

customer requests as they could in 20 minutes time. After that, the participants processed the

customer requests for 20 minutes. Subsequently, the assessment of extra-role compliance

took place, manipulation checks were assessed, and participants were paid, debriefed, and

thanked for their participation.

Manipulation of Leader Emotion

The leader allegedly knew how other groups had performed on this task in the past, and

on the basis of this (bogus) information expressed her feelings about the fact that the group of

participants was assigned this particular task. When performance on the task had allegedly

been bad in the past, she expressed anger. When performance on this task had allegedly been

good in the past, she expressed enthusiasm. Leader Emotion was manipulated mainly by

variations in facial expressions (e.g., smile or frown), tone of voice (high pitched pleasant or

high pitched unpleasant), and body language (such as body posture; e.g., making a fist in

anger or raising thumbs in enthusiasm). The leader also mentioned the emotion she felt

(angry or enthusiastic). In both conditions the leader said almost exactly the same, thus

except for the fact that she either said to be angry or enthusiastic, referring to past task

performance.

Dependent Measures

Task performance. After these instructions of the leader, the customer requests appeared

on the computer screen. The task simulated a computer retail store in which the participants

had to combine hardware packages of a personal computer (PC), a monitor, and a printer

according to customer requests. Each request consisted of a price limit (e.g., 3680 euro) and

one specific request (e.g., a 1200 dpi printer). The participants had to combine these hardware

packages without violating the customer requests. The available PCs (standard; 1750 euro,

standard-plus; 2000 euro, and professional; 2250 euro), monitors (15"; 750 euro, 17"; 950

euro, and 19"; 1150 euro) and printers (bubble-jet; 530 euro, 600 dpi-printer; 660 euro, and

1200 dpi-printer; 890 euro) were shown on the computer-screen of the participant. Then the participants had to choose one PC, one monitor and one printer by clicking the corresponding button with their mouse. After picking the three items, the participant had to click on the "Send" button, which completed one request, and then the next order was shown. The number of completed orders was displayed in the upper right corner of the screen. The use of watches, pocket calculators or paper and pencil was not allowed during the experiment. The number of completed customer requests functioned as our performance measure (see Hertel, Deter, & Konradt, 2003, for more details).

Extra-role compliance. After twenty minutes, this task ended automatically and the leader appeared for the second time on the computer screen. In the same emotional mode (angry or enthusiastic) she told the participant that, while they were working on the task, she discovered some spelling errors in the written task instructions. She said that she considered this to be rather unprofessional and asked the participant to let the experimenter know that spelling errors had been found, when they would be offered the opportunity to make some remarks about the study later on in the experiment. Not much later, participants received the opportunity to type in any remarks they might have about the study. Here, participants could inform the experimenter about typing errors if they chose to do so. Whether or not participants notified the experimenter of spelling errors was our behavioral measure of compliance with the leader.

Manipulation Checks

Finally, the participants filled out a small questionnaire in which manipulation checks were measured. We used one item to check the perception of leader's anger ("This manager was angry") and one to check leader's enthusiasm ("This manager was enthusiastic"). Responses were on scales ranging from 1 (*disagree completely*) to 5 (*agree completely*).

Results

Manipulation Checks

Manipulation checks were analyzed in a Leader Emotion by Follower PA analysis of variance. In the condition where the leader was enthusiastic, she was also perceived as more enthusiastic ($M = 4.25$, $SD = .68$) than in the condition where she was angry ($M = 2.04$, $SD = 1.15$), $F(1, 43) = 51.58$, $p < .0001$, $\eta^2 = .55$. When the leader was angry, participants indicated that she was angrier ($M = 4.04$, $SD = 1.07$) than in the condition where the leader was enthusiastic ($M = 1.21$, $SD = .42$), $F(1, 43) = 125.76$, $p < .0001$, $\eta^2 = .75$. No other effects were significant. The manipulation of Leader Emotion can therefore be considered successful.

Task Performance

We neither found a main effect for Leader Emotion, nor for follower PA. However, as expected, we found an interaction between Leader Emotion and follower PA, $F(1, 43) = 4.91$, $p < .05$, $\eta^2 = .10$. The pattern of results was as predicted in our affective match hypothesis (see Figure 1). To further test our hypothesis, we used planned comparisons. We tested whether participants processed more orders in case of a relative affective match between leader and follower (i.e., an angry leader combined with followers low in PA, or an enthusiastic leader with followers high in PA) than in case of a relative affective mismatch (i.e., an angry leader with followers high in PA, or an enthusiastic leader with followers low in PA). As expected, participants in the match conditions processed more orders ($M = 43.07$, $SD = 13.07$) than participants in the mismatch conditions ($M = 34.50$, $SD = 12.63$), $t(45) = 2.13$, $p < .05$.

Extra-Role Compliance

The behavioral measure which assessed effectiveness of the leader in terms of compliance with the leader (informing the experimenter of spelling errors in the task instruction), was analyzed in hierarchical loglinear analysis. Although the pattern of the PA x Leader Emotion

interaction was conform our expectations it failed to reach significance, χ^2 (1, $N = 47$) = 1.20, *ns.* (see Figure 2). No other effects were significant.

Discussion

We found the predicted interaction between Leader Emotion and Follower PA. Participants processed more orders in case of an affective match compared to an affective mismatch. We found the same pattern of results for our compliance measure, but possibly due to our modest sample size, this interaction failed to reach significance. The findings for task performance thus provide important first evidence that follower affect moderates the effectiveness of leaders' display of positive as compared to negative emotions.

An important issue to consider is that, even though results are in line with the affective match hypothesis, the observed effects could also have been caused by valence of the actual message content per se rather than by the affective display of the leader. Even though the leader always made an optimistic appeal to followers to perform to the best of their abilities, the leader quoted poor task performance by earlier participants as a reason for her anger, and good task performance by earlier participants as reason for her enthusiasm. Hence, the content of the leader's message in the enthusiasm condition was more positive than in the anger condition. The reason for this is self-evident: positive emotions typically are linked to more positive messages than negative emotions. Yet, from a research-methodological perspective this raises the issue to what extent the observed effects are due to leader's emotional display rather than to the valence of the content of the message itself. This issue was addressed in Study 2.

Another important issue raised by Study 1 is that the evidence it yielded in support of the affective match hypothesis is tied to the performance of a single leader. Replication of the findings of the first Study with another leader would bolster our confidence in the conclusions. Moreover, leader stereotypes and expectations are not gender-neutral (Lord,

DeVader, & Alliger, 1986; Lord, Foti, & Philips, 1982), so we should not assume that findings for a female leader (note that Study 1 employed a female leader) more or less by definition generalize to a male leader. As a case in point, Lewis (2000), although not a study involving followers, showed that perceivers' evaluations of a male leader displaying anger were more positive than evaluations of a female leader displaying anger. Although we have no reason to believe that the main effect observed by Lewis (2000) affects the interaction between leader emotion and follower PA, it is nevertheless important to test whether the affective match hypothesis also holds for a male leader. This issue was addressed in Study 2 as well.

Study 2

The aim of our second study thus was twofold. First, it was designed to disentangle the effects of leader's emotional displays from those of the valence of the message per se. Second, Study 2 aimed to replicate the findings of Study 1 with a different, and male, leader. Study 2 basically followed the same design and procedures as Study 1, with the addition of two conditions in which the leader's message (i.e., including the reference to earlier task performance) was not accompanied by an emotional display.

Our argumentation leading to the relative affective match hypothesis included evidence pertaining to the idea that a state of positive affect leads people to be more open to information (i.e., including appeals by others) that is congruent with that affective state (e.g., people in a positive affective state may be more open to positive information than to negative information). Importantly, there is evidence that this congruency effect may hold even stronger for affect-laden information, however (DeSteno, et al., 2000). That is, the affect congruency effect seems to be stronger for information implying similar affect (e.g., remembering a happy occasion when in a happy mood) than for information that only implies similar valence (e.g., remembering a positive outcome when in a happy mood).

Accordingly, we expected that the moderating effect of follower PA is first and foremost linked to the additional influence of leader's affective display and not to the valence of the message per se. In other words, we expected that the observed effect is primarily a matter of affective match rather than of what may be called valence match (i.e., a match between the valence of the message content and follower PA). In order to find support for our hypothesis the moderating effect of follower PA on responses to leader appeals should be stronger for appeals accompanied by emotional displays than for otherwise identical appeals without the display of emotion.

Note that we decided not to include a negative message accompanied by a positive emotion and a positive message accompanied by a negative emotion. We considered that such conditions would be artificial and of less relevance. Indeed, positive and negative affective displays usually communicate congruent positive or negative information (e.g., Johnson-Laird & Oatley, 2000; Keltner & Haidt, 1999; Miller & Leary, 1992; Oatley & Jenkins, 1996; Scherer, 1986).

Method

Participants and Design

Ninety-nine first and second year business and economics students (mean age was 20.91 years, $SD = 1.95$; sixty-two percent of the participants were male) participated voluntarily in this experiment in return for 10 euro. The participants were randomly assigned to the conditions of a 2 (Leader Emotion: yes/no) x 2 (Valence of Message: negative/positive) between-participants design.

Positive Affect was measured with the same nine items from the PA scale (Watson et al., 1988) as in Study 1. We used a median split ($Mdn = 3.11$) and distinguished participants high and low in PA and added this variable as a factor in the design ($\alpha = .87$, $M = 3.07$, $SD = 0.66$). The participants who were low in PA ($M = 2.47$, $SD = .44$) scored lower on PA than

participants who were high in PA ($M = 3.55$, $SD = .36$), $t(97) = -13.33$, $p < .0001$, $\eta^2 = .65$.

Procedure and Dependent Measures

The leader in this study was a trained 27 year old male actor. The procedure was the same as in Study 1. The only difference lay in the gender of the leader and in the extension of the design with two conditions in which the leader did not display emotions. Thus, as our manipulation of Valence of Message, the leader stated in the video-taped message that this task was typically executed poorly in the past ("I have been working with this task before and I experienced that people perform poorly on this task. The results are often bad on this task and that annoys me."), or that it was typically executed well ("I have been working with this task before and I experienced that people perform well on this task. The results are often good on this task and that pleases me."). Just as in Study 1, the manipulation of Leader Emotion consisted of the leader being emotional about the necessity to work with this task (angry in the case of a negative valence of message and enthusiastic in the case of a positive valence of message). The actor displayed anger and enthusiasm in the same manner as in Study 1, or he was not emotional about it (i.e., neutral; displaying no emotions, but still conveying the same negative or positive message). We used the same dependent measures as in Study 1.

Manipulation Checks

We added and adjusted manipulation checks in order to cover all independent variables in this extended design. Again, all responses potentially ranged from 1 (*disagree completely*) to 5 (*agree completely*). To check the manipulation of Leader Emotion, participants were asked to indicate to what extent the leader displayed an emotion ("This leader did not show emotions"). In addition, we asked which emotion, if any, the leader displayed ("This leader was angry" or "This leader was enthusiastic"). We also assessed the successfulness of the manipulation of Valence of Message, by measuring how well participants indicated that the

task had been done in the past. A 2 item scale was used; "The task I did has been done badly before" (reverse-scored) and "The task I did has been done well before" (M = 2.99, SD = 1.57, α = .86, r =.76).

<div align="center">Results</div>

Manipulation Checks

First, we found the expected main effect of Leader Emotion on the extent to which the participants perceived the leader to display emotion. Participants indicated that the leader showed less emotion in the no emotion condition (M = 2.24, SD = .98) than in the emotion condition (M = 3.61, SD = .96), $F(1, 91)$ = 48.72, p < .0001, η^2 = .35. No other effects were significant.

Furthermore, we found that the participants clearly recognized Valence of Message as communicated by the leader. We checked, more specifically, the positiveness of the message and found that participants in the positive Valence of Message condition, scored higher on this scale (M = 4.33, SD = .86) than those in the negative Valence of Message condition (M = 1.75, SD = .93), $F(1, 91)$ = 194.90, p < .0001, η^2 = .68. No other effects were significant.

A successful manipulation of the specific emotions of the leader should be apparent from an interaction of Valence of Message x Leader Emotion on the extent to which the participants considered the leader to be enthusiastic and angry. We indeed found a Valence of Message x Leader Emotion interaction on the extent to which the leader was perceived as enthusiastic, $F(1, 91)$ = 14.48, p < .0001, η^2 = .14. When the leader was enthusiastic, followers rated him as more enthusiastic (M = 4.20, SD = .58) than when the leader was angry (M = 2.45, SD = 1.00), $t(43)$ = 7.37, p < .0001, when the leader displayed no emotion with a positive message (M = 2.65, SD = .98), $t(46)$ = 6.72, p < .0001, or when the leader combined no emotions with a negative message (M = 2.29, SD = .90), $t(54)$ = 9.17, p < .0001. No other effects were significant.

For perceptions of the leader's anger, we also found an interaction of Valence of Message x Leader Emotion, $F(1, 91) = 45.22$, $p < .0001$, $\eta^2 = .33$. Thus, angry leaders were perceived as angrier ($M = 4.05$, $SD = 1.10$) than enthusiastic leaders ($M = 1.40$, $SD = .65$), $t(43) = 10.09$, $p < .0001$, and than leaders who did not display emotions but had a positive message ($M = 1.22$, $SD = .42$), $t(41) = 11.45$, $p < .0001$, or a negative message ($M = 1.81$, $SD = .75$), $t(49) = 8.68$, $p < .0001$. No other effects were significant.

Therefore, we concluded that our manipulations were successful.

Task Performance

We did not find main effects for Leader Emotions, Valence of Message or followers' PA, nor did we find two-way interactions. However, an analysis of variance on the amount of orders that the participants completed, revealed the expected three-way interaction of Positive Affect x Leader Emotions x Valence of Message, $F(1, 91) = 4.20$, $p < .05$, $\eta^2 = .04$ (see Figure 3). To test our hypothesis, planned comparisons were used (see Table 1). First, comparing performance within the emotion conditions, we tested whether participants processed more orders when there was a match between leader emotion and follower PA versus a mismatch, which would signify a replication of Study 1 (contrast 1). Second, comparing performance in the no emotion condition, we examined whether participants processed more orders when there was a valence match compared to a valence mismatch (contrast 2). Note that we expected no difference here. If contrast 1 is significant while contrast 2 is not, this shows that the observed effect may be attributed to the additional influence of emotional display of the leader and not to the valence of the leader's message per se.

In addition, we included two other contrasts to test the relative effectiveness of leader appeals with versus without accompanying emotional displays. Although these contrasts are not central to the current focus on follower PA as moderator of the effectiveness of leader

positive versus negative emotional displays, they are of interest from the perspective that leader emotional displays may increase leadership effectiveness. Therefore, we also compared performance in the affective match versus valence match conditions (contrast 3), and performance in the affective mismatch versus valence mismatch conditions (contrast 4), to determine whether leader emotional displays may add to leadership effectiveness (in case of affective match) or decrease leadership effectiveness (in case of affective mismatch).

Contrast 1 was significant. In case of an affective match participants processed more orders ($M = 41.04$, $SD = 15.27$) than in case of affective mismatch ($M = 33.11$, $SD = 10.70$), $t(97) = 2.01$, $p < .05$. This finding is a replication of the results of Study 1. Contrast 2 was not significant, as expected, indicating that valence match did not affect follower performance, $t(97) = -.94$, $p = .35$. Contrary to expectations, Contrast 3 was not significant. Although participants in the affective match conditions appeared to process more orders ($M = 41.04$, $SD = 15.27$), than participants in the valence match conditions ($M = 38.47$, $SD = 12.59$), this difference was not significant, $t(97) = .67$, $p = .50$. In support of our predictions, however, contrast 4 showed that participants in the affective mismatch conditions performed worse ($M = 33.11$, $SD = 10.70$) than participants in the valence mismatch conditions ($M = 42.17$, $SD = 17.59$), $t(97) = 2.05$, $p < .05$. In sum then, results are largely in line with predictions. Follower PA moderates the effects of leader's display of positive versus negative emotions, whereas participants were unaffected by the content of the message per se. In addition, affective mismatch led to poorer performance than valence mismatch, but affective match did not lead to significantly better performance than valence match.

Extra-Role Compliance

For followers compliance with the leader's request, the only significant effect in a hierarchical log linear analysis was the predicted three-way interaction, $\chi^2 (1, N = 99) = 6.14$, $p = .01$. We found the same pattern of results as we did for task performance (see Figure 4).

We further explored the results on extra-role compliance by conducting a series of χ^2-tests, contrasting different match and mismatch conditions following the same logic as outlined above. In the emotion conditions, we expected to find that people who experience an affective match comply more with their leader than people who experience an affective mismatch. Indeed, participants who experienced an affective match with their leader complied in 42.3% of the cases, whereas participants who experienced an affective mismatch complied only in 5.3% of the cases, χ^2 (1, $N = 45$) $= 7.70$, $p < .01$. Note that Study 1 revealed a similar, although not significant, pattern of results. In case of an unemotional leader, we did not expect a difference between the valence match and mismatch conditions. Indeed, we found no significant difference here (χ^2 (1, $N = 54$) $= .25$, $p = .61$; 40.0% of the participants complied in case of a valence match, and 33.3% of the participants complied in case of a valence mismatch). We furthermore expected a difference between the affective match and valence match conditions and between the affective mismatch and valence mismatch conditions. Comparable to the results of task performance, we did not find differences in extra-role compliance between the affective match and valence match conditions: In the affective match condition 42.3% of the participants complied and in the valence match condition 40% did, χ^2 (1, $N = 56$) $= .03$, $p = .86$. In case of an affective mismatch only 5.3% complied, which differed, as expected, from the compliance in the valence mismatch conditions (33.3%), χ^2 (1, $N = 43$) $= 5.05$, $p < .05$.

Discussion

The results of Study 2 add to the findings of Study 1 in three important ways. First, they show that the findings of Study 1 are not tied to one particular leader. The affective match hypothesis holds for a male as well as for a female leader. Second, the results of Study 2 showed that the greater effectiveness of leader emotional displays that match follower PA is tied to the leader's emotional display and not to the valence of the leader's message per se

(i.e., we did not find a valence match effect, only an affective match effect). Third, Study 2 showed that the effects observed for task performance may also obtain for extra-role behavior. In combination, these findings substantially bolster the confidence in the conclusion that the relative effectiveness of leaders' positive versus negative emotional displays in engendering desired follower behavior is contingent on the match between the leader's emotional display and follower PA.

Study 2 yielded the predicted effect for extra-role compliance whereas Study 1 did not. Inspection of compliance levels in the emotion conditions across the two experiments suggest that this is mainly due to higher levels of compliance in the affective mismatch conditions of Study 1 as compared with Study 2. People seemed less hesitant to turn down a less appealing request for extra-role compliance (i.e., in the mismatch conditions) when the leader was male than when the leader was female. Possibly, this points to a gender effect in the relation between affective mismatch and extra-role compliance, but more empirical evidence is required for a less tentative conclusion.

Interestingly, Study 2 showed that affective mismatch led to lower leadership effectiveness than a comparable message without the accompanying emotional display. Affective match, in contrast, did not lead to significantly better performance than a comparable appeal without emotions. If we assume that follower affective state leads followers to expect others, including their leader, to be in a similar state (cf. DeSteno et al., 2000), the observation that affective mismatch had a stronger impact on follower performance than affective match is consistent with evidence that circumstances that are incongruent with expectations tend to attract more attention than circumstances that are congruent with expectations (e.g., Fiske & Taylor, 1991; Stangor & McMillan, 1992).

General Discussion

There is more and more evidence that leaders' affective displays influence leadership

effectiveness. Less clear is which factors influence the relative effectiveness of positive as compared with negative emotional displays. Focusing on a possible moderator of the relative effectiveness of positive versus negative emotional displays, the present study showed that the affective match between the valence of leaders' emotional display and followers' level of positive affect influenced leaders' ability to engender desired follower behavior. The contribution of the present study to the emerging field of leadership, affect, and emotions thus is that it highlights the role of follower characteristics, specifically follower PA, as moderator of the effectiveness of leaders' positive versus negative emotional displays.

The present findings, as well as the current study's limitations, suggest a number of issues that warrant further consideration and research. First, the stability and duration of affective experiences may differ considerably. Positive affect may concern relatively short-lived affective states, fluctuating over time and situations in the course of even a single day (Larsen et al., 2002; Lord & Brown, 2004; Watson, Wiese, Vaidya, & Tellegen, 1999), but it may also concern a trait which is more stable over time (Watson et al., 1988). For the purposes of our study it seemed most relevant to focus on how participants were feeling at the moment that they were confronted with their leader. However, it may also be interesting to investigate to what extent trait affect functions as a moderator of the effects of leader emotional displays. Although one may expect PA as a trait to operate in a similar manner as PA as state (given the fact that there is considerable overlap between the two, Schmulke, Egloff, & Burns, 2002), work by George (1991) suggests that the effects of trait PA on behavior in organizations may be smaller than the effects of state PA. The affective match effect might therefore be stronger for follower state PA than for follower trait PA.

Another issue concerns the determinants of state PA. State PA may be affected by recent history, encounters with others, or other aspects of the situational context. Situational factors that could affect PA may thus be expected to moderate the relative effectiveness of leader

positive and negative emotional displays. For instance, in times of organizational crisis and change subordinates often feel more depressed and stressed (Bordia, Hobman, Jones, Gallois, & Callan, 2004; Terry, Callan, & Sartori, 1996) than in more stable organizational circumstances. Accordingly, PA of subordinates may be lower in times of organizational crisis and change and higher in times of organizational prosperity. The current analysis would therefore suggest that in times of crisis and change, displays of negative emotions by the leader are relatively more effective and displays of positive emotions relatively less effective than in more stable and prosperous times. The present study thus suggests that a range of moderators of the relative effectiveness of leader positive versus negative emotional displays may be identified by focusing on the determinants of PA.

We focused on the match between follower PA and the valence of leader's emotional display. We may raise the question whether a similar affective match would obtain for follower negative affect (NA). NA refers to the experience of discomfort and negative emotionality (Watson & Clark, 1984). Accordingly, one could argue that leader display of negative emotions should be a better match with high follower NA then leader display of positive emotion, and accordingly that follower NA should also moderate the relative effectiveness of positive versus negative leader affective displays. However, there is evidence that the affect congruence effect is stronger for positive affect than for negative affect (Blaney, 1986; Singer & Salovey, 1988), and that PA is more important than NA in social interaction (Barsade et al., 2000; Watson, Clark, McIntyre, & Hamaker, 1992). Barsade et al. (2000), for instance found that similarity in PA, but not NA, predicted team process. We would thus expect that follower NA is less important in informing responses to leader affective displays than follower PA. Because we assessed PA with the Positive Affect Negative Affect Schedule (PANAS; Watson et al., 1988), we were able to also test the

moderating role of follower NA. Consistent with the current reasoning, we did not find evidence for an effect of follower NA in either experiment.

Although the present study gives support to our affective match hypothesis, it gives little insight into the reason why affective match is of importance. It may be that similarity between people (i.e., between leader and follower) plays a significant role in the processes we studied. People in general like similar others (e.g., Berscheid & Reis, 1998; Fiske & Taylor, 1991). In the leadership field, studies which relate to similarity showed for instance that prototypical leaders (i.e., leaders who are representative for the workgroup) are more effective (e.g., van Knippenberg & van Knippenberg, 2005), but also leaders who are similar in demography (e.g., gender, race, tenure: Tsui and O' Reilly, 1989; Tsui, Porter, & Egan, 2002). Another important possible underlying explanation for our findings is 'liking'. Leaders who are liked by their subordinates perform better and therefore liking can explain leadership effectiveness (Engle & Lord, 1997; Emrich, 1999; Stang, 1973). For instance, Engle & Lord (1997) found that leaders who are perceived as similar are liked more and therefore are perceived as more effective in terms of LMX quality. In line with these findings, we could argue that in case of an affective match, the leader is liked more and therefore more effective. Yet, although it seems plausible that these underlying processes might have played a part, empirical evidence is necessary in order to reach a firm conclusion regarding the role of similarity and liking. Future research may address this important issue.

In similar vein, there are some studies that suggest that people perform better in organizational settings in the presence of others who experience similar (mainly positive) affect than being together with others who experience dissimilar affect (e.g., Barsade et al., 2000; Bauer & Green, 1996). The leader, being such an influential group member, may receive a lot of attention from other group members. As a consequence, the leader's affective displays may, over time, strongly affect the affective states of the work group members,

which may result in the development of an affective tone of the work group (George, 1996; George & Brief, 1992). This homogenous affective tone amongst group members, in turn, may make followers particularly sensitive to the leaders' influence. Leaders that are able to transfer affective information (for instance because they have regular face-to-face contact with followers) may thus, in the long run, be more influential than leaders that miss the opportunity to transfer affect.

Related to this issue, and of particular relevance to managerial practice, some circumstances may be expected to produce relatively homogeneous follower affective states that are easily identifiable by the leader (e.g., a crisis that affects everyone), whereas other circumstances may be expected to lead to more heterogeneous affect among followers (e.g., success unique to an individual follower) or to less predictable affect among followers (e.g., when the causes of affective state lie outside of the leader's awareness). To the extent that leaders can control their emotional displays (e.g., suppress felt emotions, or selectively show specific emotions), it would therefore seem easier and more viable for leaders to effectively use their emotions in situations in which follower affective state can be expected to be relatively homogeneous and predictable than in situations where follower affective state is likely to be more diverse or unpredictable. Indeed, in the latter case refraining from the display of emotions would perhaps seem the better option, especially in view of the current findings that suggest that affective mismatch may have stronger negative effects than that affective match has positive effects. Homogeneity and predictability of follower affective state might thus also be an important determinant of the effectiveness of leader affective displays.

A limitation of the current study is that we focused on two distinct emotions: anger and enthusiasm. Anger and enthusiasm are acknowledged as important aspects of leaders' emotional behavior (e.g., Lord & Brown, 2004; Lewis, 2000; Tiedens, 2001) and studying

them therefore has definite value, but they represent only one positive and one negative emotion. Ideally, we would be able to extend our conclusions to other positive and negative emotions. It would therefore be valuable to test the affective match hypothesis with a broader range of positive and negative emotions to more firmly establish that the results obtained in the present study are attributable to the valence of the emotions studied and not to more specific characteristics of anger and enthusiasm.

In a sense related to this, it would also be very relevant to look at the effects of different causes of the leaders' affective displays. In the present study, leaders' emotions were elicited by the task context and not directed at followers. Although this may be a very plausible cause of leader emotions, we should be careful not to overgeneralize in this respect. Other causes of the leader's affect may lead to different influences on leadership effectiveness. Leader anger that is targeted at the follower, for instance, may work out quite differently than leader anger that is targeted at the task. Cause and target of leader emotional displays seem critical to take into account if we are to develop a proper understanding of the effects of leader emotional displays, and in this respect the generalizability of the current (and previous) findings might be limited to the kind of cause/target studied.

Another issue is raised by the fact that we conducted laboratory experiments. The obvious advantage of this is that it made it possible to reach conclusions regarding causality and allowed us to use an objective measure of follower performance. The experimental methodology was also important in disentangling the effects of emotional displays from those of the leader's appeal per se. However, even though experiments are not conducted in a quest for external validity (Brown & Lord, 1999; Mook, 1983), reports of experimental research may always elicit questions of external validity. A thing to note in this respect is that several leadership studies testing their hypotheses in the lab as well as in the field have consistently shown that findings from laboratory experiments generalize to field settings (De Cremer &

van Knippenberg, 2002, 2004; De Cremer, van Knippenberg, van Knippenberg, Mullenders, & Stinglhamber, 2005; van Knippenberg & van Knippenberg, 2005; cf. Dipboye, 1990). Even so, it would be valuable if future research would study leader emotional displays and the moderating role of follower PA in organizational settings where leaders and followers are in an ongoing relationship. This would also allow the study of the effects of leader emotional displays on the performance on more complex tasks than the current order-processing task, as well as the effects of leader emotional displays on performance of tasks that last longer than 20 minutes, or repetitive tasks, to attain a broader picture of the effects of leader emotions.

Given the important role of affect in guiding people's perceptions, attitudes, and behaviors, developing our understanding of the effects of leader emotional displays would seem highly relevant to our understanding of leadership effectiveness, and more generally organizational behavior. By highlighting the role of follower affective state in this respect, the present study hopes to make a contribution to the development of this analysis. Indeed, it is our firm belief that the effectiveness of leader emotions can only be understood if the role of followers is given as much weight as the role of the leader.

References

Albarracín, D., & Kumkale, G. T. (2003). Affect as information in persuasion: A model of affect identification and discounting. *Journal of Personality and Social Psychology, 44,* 453-469.

Anderson, C., & Thompson, L. L. (2004). Affect from the top down: How powerful individuals' positive affect shapes negotiations. *Organizational Behavior and Human Decision Processes, 95,* 125-139.

Ashkanasy, N. M., & Tse, B. (2000). Transformational leadership as management of emotion: A conceptual review. In N. M. Ashkanasy, E. J. Härtel, & W. J. Zerbe (Eds.), *Emotions in the workplace: Research, theory and practice* (pp. 221-235). Westport, CT: Quorum Books.

Awamleh, R., & Gardner, W. L. (1999). Perceptions of leader charisma and effectiveness: The effects of vision, content, delivery, and organizational performance. *Leadership Quarterly, 10,* 345-373.

Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly, 47,* 644-675.

Barsade, S. G., Ward, A. J., Turner, J. D. F., & Sonnenfeld, J. A. (2000). To your heart's content: A model of affective diversity in top management teams. *Administrative Science Quarterly, 45,* 802-836.

Bartel, C. A., & Saavedra, R. (2000). The collective construction of work group moods. *Administrative Science Quarterly, 45,* 197-231.

Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact.* Mahwah, NJ: Erlbaum.

Bauer, T. N., & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. *Academy of Management Journal, 39,* 1538-1567.

Berscheid, E., & Reis, H. T. (1998). Attraction and close relationships. In D. T. Gilbert, S. T.

    Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 193-

    281). New York, NY: McGraw-Hill.

Blaney, P. H. (1986). Affect and memory: A review. *Psychological Bulletin, 99,* 229-246.

Bono, J. E., & Ilies, R. (in press). Charisma and emotional contagion: Toward understanding

    the role of positive emotions in leadership. *Leadership Quarterly.*

Bordia, P., Hobman, E., Jones, E., Gallois, C., & Callan, V. J. (2004). Uncertainty during

    organizational change: Types, consequences, and management strategies. *Journal of*

    Business and Psychology, 18, 507-532.

Bower, G. H. (1981). Mood and memory. *American Psychologist, 36,* 129-148.

Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace.

    Annual Review of Psychology, 53, 279-307.

Brown, D. J., & Lord, R. G. (1999). The utility of experimental research in the study of

    transformational/charismatic leadership. *Leadership Quarterly, 10*, 531-539.

Cacioppo, J. T., & Gardner, W. L. (1999). Emotion. *Annual Review of Psychology, 50,* 191-

    214.

Carnevale, P. J., & Isen, A. M. (1986). The influence of positive affect and visual access on

    the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior*

    and Human Decision Processes, 37, 1-13.

Cherulnik, P. D., Donley, K. A., Wiewel, T. S. R., & Miller, S. R. (2001). Charisma is

    contagious: The effect of leaders' charisma on observers' affect. *Journal of Applied*

    Social Psychology, 31, 2149-2159.

Conger, J. A., & Kanungo, R. N. (1998). *Charismatic leadership in organizations.* Thousand

    Oaks, CA: Sage.

Cropanzano, R., James, K., & Konovsky, M. A. (1993). Dispositional affectivity as a

predictor of work attitudes and job performance. *Journal of Organizational Behavior, 14,* 595-606.

Damasio, A. R. (1994). *Descartes' error: Emotion, reason, and the human brain.* New York, NY: Grosset/Putnam.

Damen, F., van Knippenberg, B., & van Knippenberg, D. (2003, June). *Leadership and emotions: Transference of enthusiasm and perceptions of charisma.* Study presented at the EAESP Small Group Meeting on New Directions in Leadership Research, Amsterdam, 2003.

De Cremer, D., & van Knippenberg, D. (2002). How do leaders promote cooperation? The effects of charisma and procedural fairness. *Journal of Applied Psychology, 87,* 858-866.

De Cremer, D., & van Knippenberg, D. (2004). Leader self-sacrifice and leadership effectiveness: The moderating role of leader self-confidence. *Organizational Behavior and Human Decision Processes, 95,* 140-155.

De Cremer, D., van Knippenberg, B., van Knippenberg, D., Mullenders, D., & Stinglhamber, F. (2005). Rewarding leadership and fair procedures as determinants of self-esteem. *Journal of Applied Psychology, 90,* 3-12.

DeSteno, D., Petty, R. E., Rucker, D. D., Wegener, D. T., Braverman, J. (2004). Discrete emotions and persuasion: The role of emotion-induced expectancies. *Journal of Personality and Social Psychology, 86,* 43-56.

DeSteno, D., Petty, R. E., Wegener, D. T., & Rucker, D. D. (2000). Beyond valence in the perception of likelihood: The role of emotion specificity. *Journal of Personality and Social Psychology, 78,* 397-416.

Dipboye, R. L. (1990). Laboratory vs. field research in industrial and organizational psychology. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 5, pp. 1-34). Chichester, UK: Wiley.

Duffy, M. K., Ganster, D. C., & Shaw, J. D. (1998). Positive affectivity and negative outcomes: The role of tenure and job satisfaction. *Journal of Applied Psychology, 83,* 950-959.

Emrich, C. G. (1999). Context effects in leadership perception. *Personality and Social Psychology Bulletin, 25,* 991-1006.

Engle, E. M., & Lord, R. G. (1997). Implicit theories, self-schemas, and leader-member exchange. *Academy of Management Journal, 40,* 988-1010.

Fiske, S. T., & Taylor, S. E. (1991). *Social Cognition* (2nd ed.). New York, NY: McGraw-Hill.

Fitness, J. (2000). Anger in the workplace: An emotion script approach to anger episodes between workers and their superiors, co-workers and subordinates. *Journal of Organizational Behavior, 21,* 147-162.

Forgas, J. P. (1992). Affect in social judgments and decisions: A multi process model. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 227-275). Orlando, FL: Academic Press.

Forgas, J. P. (1994). The role of emotion in social judgments: An introductory review and an affect infusion model (AIM). *European Journal of Social Psychology,* 24, 1-24.

Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin, 117,* 39-66.

Forgas, J. P. (Ed.). (2001). *Handbook of affect and social cognition.* Mahwah, NJ: Erlbaum.

Fortunato, V. J., & Stone-Romero, E. F. (2001). Positive affectivity as a moderator of the objective-task characteristics/perceived-task characteristics relationship. *Journal of Applied Social Psychology, 31,* 1248-1278.

Fridlund, A. J. (1992). The behavioral ecology and sociality of human faces. In M. S. Clark (Ed.), *Review of personality and social psychology* (Vol. 13, pp. 90-121). Thousand Oaks,

CA: Sage

Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.

Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama & H. S. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 51-87). Washington DC: American Psychological Association.

Gaddis, B., Connelly, S., & Mumford, M. D. (2004). Failure feedback as an affective event: Influence of leader affect on subordinate attitudes and performance. *Leadership Quarterly, 15,* 663-686.

George, J. M. (1990). Personality, affect, and behavior in groups. *Journal of Applied Psychology, 75,* 107-116.

George, J. M. (1991). State or trait: Effects of positive mood on prosocial behaviors at work. *Journal of Applied Psychology, 76,* 299-307.

George, J. M. (1995). Leader positive mood and group performance: The case of customer service. *Journal of Applied and Social Psychology, 25,* 778-794.

George, J. M. (1996). Group affective tone. In M. A. West (Ed.), *Handbook of Work Group Psychology* (pp. 77-93). Chichester, UK: John Wiley & Sons.

George, J. M., & Brief, A. P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological Bulletin, 112,* 310-329.

George, J. M., & Brief, A. P. (1996). Motivational agendas in the workplace: The effects of feelings on focus of attention and work motivation. *Research in Organizational Behavior, 18,* 75-109.

Glomb, T. M., & Hulin, C. L. (1997). Anger and gender effects in observed supervisor-subordinate dyadic interactions. *Organizational Behavior and Human Decision Processes, 72,* 281-307.

Grandey, A. A., Fisk, G. M., Mattila, A. S., Jansen, K. J., & Sideman, L. A. (2005). Is "service with a smile" enough? Authenticity of positive displays during service encounters. *Organizational Behavior and Human Decision Processes, 96,* 38-55.

Gray, J. A. (1971). The psychophysiological basis of introversion - extraversion. *Behavior Research and Therapy,* 8, 249-266.

Gray, J. A. (1981). *A critique of Eysenck's theory of personality.* In H. J. Eysenck (Ed.), A model for personality (pp. 246–276). New York, NY: Springer

Gray, J. A. (1987). Perspectives on anxiety and impulsivity: A commentary. *Journal of Research in Personality,* 21, 493-509.

Hertel, G., Deter, C., & Konradt, U. (2003). Motivation gains in computer-supported groups. *Journal of Applied Social Psychology, 33,* 2080-2105.

Hochwarter, W. A., Kiewitz, C., Castro, S. L., Perrewé, P. L., & Ferris, G. R. (2003). Positive affectivity and collective efficacy as moderators of the relationship between perceived politics and job satisfaction. *Journal of Applied Social Psychology, 33,* 1009-1035.

Iverson, R. D., & Deery, S. J. (2001). Understanding the "personological" basis of employee withdrawal: The influence of affective disposition on employee tardiness, early departure, and absenteeism. *Journal of Applied Psychology, 86,* 856-866.

Johnson-Laird, P. N., & Oatley, K. (2000). Cognitive and social construction in emotions. In M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed., pp 458-475). New York, NY: Guilford Press.

Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: A study of their relationship at work and at home. *Journal of Applied Psychology, 89,* 661-673.

Kelly, J. R., & Barsade, S. G. (2001). Mood and emotions in small groups and work teams. *Organizational Behavior and Human Decision Processes, 86,* 99-130.

Keltner, D., & Haidt, J. (1999). Social function of emotions at four levels of analysis.

Cognition and Emotion, 13, 505-521.

Knutson, B. (1996). Facial expressions of emotion influence interpersonal trait inferences. *Journal of Nonverbal Behavior, 20,* 165-182.

Larsen, R. J., Diener, E., & Lucas, R. E. (2002). Emotion: Models, measures, and individual differences. In R. G. Lord, R. J. Klimoski, & R. Kanfer (Eds.), *Emotions in the workplace: Understanding the structure and role of emotions in organizational behavior* (pp. 64-106). San Francisco, CA: Jossey-Bass.

Larsen, R. J., & Ketelaar, T. (1991). Personality and susceptability to positive and negative emotional states. *Journal of Personality and Social Psychology, 61,* 132-140.

Lewis, K. M. (2000). When leaders display emotion: How followers respond to negative emotional expression of male and female leaders. *Journal of Organizational Behavior, 21,* 221-234.

Lewis, M., & Haviland-Jones, J. M. (Eds.). (2000). *Handbook of emotions* (2nd ed.). New York, NY: Guilford Press.

Locke, E. A., Kirkpatrick, S., Wheeler, J. K., Schneider, J., Niles, K., Goldstein, H. et al. (1991). *The essence of leadership: The four keys to leading successfully.* New York, NY: Lexington.

Lord, R. G., & Brown, D. J. (2004). *Leadership processes and follower self-identity.* Mahwah, NJ: Erlbaum.

Lord, R. G., DeVader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of Applied Psychology, 71,* 402-410.

Lord, R. G., Foti, R. J., & DeVader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance, 34,* 343-378.

Lord, R. G., Foti, R. J., & Philips, J. S. (1982). A theory of leadership categorization. In J. G. Hunt, U. Sekaran & C. Schriesheim (Eds.), *Leadership: Beyond establishment views* (pp. 104-121). Carbondale, IL: Southern Illinois University Press.

Lord, R. G, Klimoski, R. J., & Kanfer, R. (Eds.). (2002). *Emotions in the workplace: Understanding the structure and role of emotions in organizational behavior.* San Francisco, CA: Jossey-Bass.

Mackie, D. M., & Worth, L. T. (1989). Processing deficits and the mediation of positive affect in persuasion. *Journal of Personality and Social Psychology, 57,* 27-40.

Martin, L. L., Ward, D. W., Achee, J. W, & Wyer, R. S. (1993). Mood as input: People have to interpret the motivational implications of their moods. *Journal of Personality and Social Psychology, 64,* 317-326.

McColl-Kennedy, J. R., & Anderson, R. D. (2002). Impact of leadership style and emotions on subordinate performance. *Leadership Quarterly, 13,* 545-559.

Meindl, J. R. (1995). The romance of leadership as a follower-centric theory: A social constructionist approach. *Leadership Quarterly, 6*, 329-341.

Miller, R. S., & Leary, M. R. (1992). Social sources and interactive functions of emotion: The case of embarrassment. In M. S. Clark (Ed.), *Emotion and social behavior* (pp. 202-222). Newbury Park, CA: Sage.

Mook, D. G. (1983). In defense of external invalidity. *American Psychologist, 38,* 379–387.

Motowidlo, S. J., Borman, W. C., & Schmit, M. J. (1997). A theory of individual differences in task and contextual performance. *Human Performance, 10,* 71-83.

Newcombe, M. J., & Ashkanasy, N. M. (2002). The role of affect and affective congruence in perceptions of leaders: An experimental study. *Leadership Quarterly, 13,* 601-614.

Niedenthal, P. M. & Showers, C. (1991). The perception and processing of affective information and its influences on social judgment. In J. P. Forgas (Ed.), *Emotion and*

Social Judgments (pp. 125-143). Oxford: Pergamon Press.

Oatley, K., & Jenkins, J. M. (1996). *Understanding emotions.* Cambridge, MA: Blackwell.

Oatley, K., & Johnson-Laird, P. N. (1987). Towards a cognitive theory of emotions. *Cognition and Emotion, 1*, 29-50.

Organ, D. W. (1990). The motivational basis of organizational citizenship behavior. *Research in Organizational Behavior 12,* 43-72.

Rusting, C. L., & Larsen, R. J. (1997). Extraversion, neuroticism, and susceptibility to positive and negative affect: A test of two theoretical models. *Personality and Individual Differences, 22,* 607-612.

Rusting, C. L., & Larsen, R. J. (1998). Personality and cognitive processing of affective information. *Personality and Social Psychology Bulletin, 24,* 200-213.

Scherer, K. R. (1986). Vocal affect expression: A review and a model for future research. *Psychological Bulletin, 99,* 143-165.

Schmulke, S. C., Egloff, B., & Burns, L. R. (2002) The relationship between positive and negative affect in the Positive and Negative Affect Schedule. *Journal of Research in Personality, 36,* 463-475.

Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgment of well being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology, 45,* 513-523.

Singer, J. A., & Salovey, P. (1988). Mood and Memory: Evaluating the network theory of affect. *Clinical Psychology Review, 8,* 211-251.

Stang, D. J. (1973). Effect of interaction rate on ratings of leadership and liking. *Journal of Personality and Social Psychology, 27,* 405-408.

Stangor, C., & McMillan, D. (1992). Memory for expectancy-congruent and expectancy-incongruent information: A review of the social and social developmental literatures.

Psychological Bulletin, 111, 42-61.

Staw, B. M., & Barsade, S. G. (1993). Affect and managerial performance: A test of the

sadder-but-wiser vs. happier-and-smarter hypotheses. *Administrative Science Quarterly,*

38, 304-331.

Staw, B. M., Sutton, R. I., & Pelled, L. H. (1994). Employee positive emotion and favorable

outcomes at the workplace. *Organization Science, 5,* 51-71.

Sutton, R. I., & Rafaeli, A. (1988). Untangling the relationship between displayed emotions

and organizational sales: The case of convenience stores. *Academy of Management*

Journal, 31, 461-487.

Sy, T., Côté, S., & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood

on the mood of group members, group affective tone, and group processes. *Journal of*

Applied Psychology, 90, 295-305.

Terry, D. J., Callan, V. J., & Sartori, G. (1996). Employee adjustment to an organizational

merger: Stress, coping and intergroup differences. *Stress Medicine, 12,* 105-122.

Tiedens, L. Z. (2001). Anger and advancement versus sadness and subjugation: The effect of

negative emotion expressions on social status conferral. *Journal of Personality and Social*

Psychology, 80, 86-94.

Totterdell, P. (2000). Catching moods and hitting runs: Mood linkage and subjective

performance in professional sport teams. *Journal of Applied Psychology, 85*, 848-859.

Tsui, A. S., & O'Reilly, C. A. (1989). Beyond simple demographic effects: The importance

of relational demography in superior-subordinate dyads. *Academy of Management*

Journal, 32, 402-423.

Tsui, A. S., Porter, L. W., & Egan, T. D. (2002). When both similarities and dissimilarities

matter: Extending the concept of relational demography. *Human Relations, 55*, 899-929.

van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004a). The interpersonal effects

of anger and happiness in negotiations. *Journal of Personality and Social Psychology, 86,* 57-76.

van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004b). The interpersonal effects of emotions in negotiations: A motivated information processing approach. *Journal of Personality and Social Psychology, 87,* 510-528.

van Knippenberg, B., & van Knippenberg, D. (2005). Leader self-sacrifice and leadership effectiveness: The moderating role of leader prototypicality. *Journal of Applied Psychology, 90,* 25-37.

Watson, D., & Clark, L. A. (1984). Negative Affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin, 96*, 465-490.

Watson, D., Clark, L. A., McIntyre, C. W., & Hamaker, S. (1992). Affect, personality, and social activity. *Journal of Personality and Social Psychology, 63,* 1011-1025.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54,* 1063-1070.

Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin, 98,* 219-235.

Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76,* 820-838.

Weiss, H. M., & Cropanzano, R. (1996). Affective Events Theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In L. L. Cummings, & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 18). Greenwich, CT: JAI Press.

Williams, J. M. G., Watts, F. N., MacLeod, C., & Mathews, A. (1999). *Cognitive psychology*

and emotional disorders (2nd ed.). Chichester, UK: Wiley.

Wright, P. M., George, J. M., Farnsworth, S. R., & McMahan, G. C. (1993). Productivity and extra-role behavior: The effects of goals and incentives on spontaneous helping. *Journal of Applied Psychology, 78,* 374-381.

Yoon, J., & Thye, S. (2000). Supervisor in the work place: Legitimacy and positive affectivity. *Journal of Social Psychology, 140,* 295-316.

Zelenski, J. M., & Larsen R. J. (1999). Susceptibility to affect: A comparison of three personality taxonomies. *Journal of Personality, 67,* 761-791.

Footnotes

[1] We both use the terms "affect" and "emotion" here. Affect is used to describe a more general, broader term to refer to feelings. Emotion is used as a term to refer to a specific, interruptive, and intense process of feelings (e.g. Forgas, 1992; Frijda, 1986; Lewis & Haviland-Jones, 2000).

[2] We were not able to translate "attentive" into Dutch while maintaining the same affective connotation. Therefore we used 9 items for PA.

Table 1

Means, Standard Deviations and Contrasts Computed to Test Hypothesis (Study 2).

					Condition			
	Enthusiasm PA+	Enthusiasm PA-	Anger PA+	Anger PA-	Message+ Neutral PA+	Message+ Neutral PA-	Message- Neutral PA+	Message- Neutral PA-
M	39.00	31.22	34.80	44.30	36.50	41.56	42.53	40.19
(*SD*)	(14.76)	(12.37)	(9.30)	(16.29)	(11.55)	(16.14)	(18.95)	(13.58)
Contrast 1*	1	-1	-1	1	0	0	0	0
Contrast 2	0	0	0	0	1	-1	-1	1
Contrast 3	1	0	0	1	-1	0	0	-1
Contrast 4*	0	1	1	0	0	-1	-1	0

Note. Standard deviations are presented between brackets. Contrasts marked with an asterisk are significant at *p* < .05.

Figure Captions

*Figure 1*. Performance per condition, Study 1

Figure 2. Compliance with leader per condition, Study 1

Figure 3. Performance per condition, Study 2

Figure 4. Compliance with leader per condition, Study 2

M = 44.30
SD = 16.29

M = 39.00
SD = 14.76

M = 34.88
SD = 9.30

M = 31.22
SD = 12.37

Enthusiastic   Angry

Low PA

Enthusiastic   Angry

High PA

M = 41.56
SD = 16.14

M = 40.19
SD = 13.58

M = 36.50
SD = 11.55

M = 42.53
SD = 18.95

Neutral pos. Neutral neg.

Low PA

Neutral pos. Neutral neg.

High PA
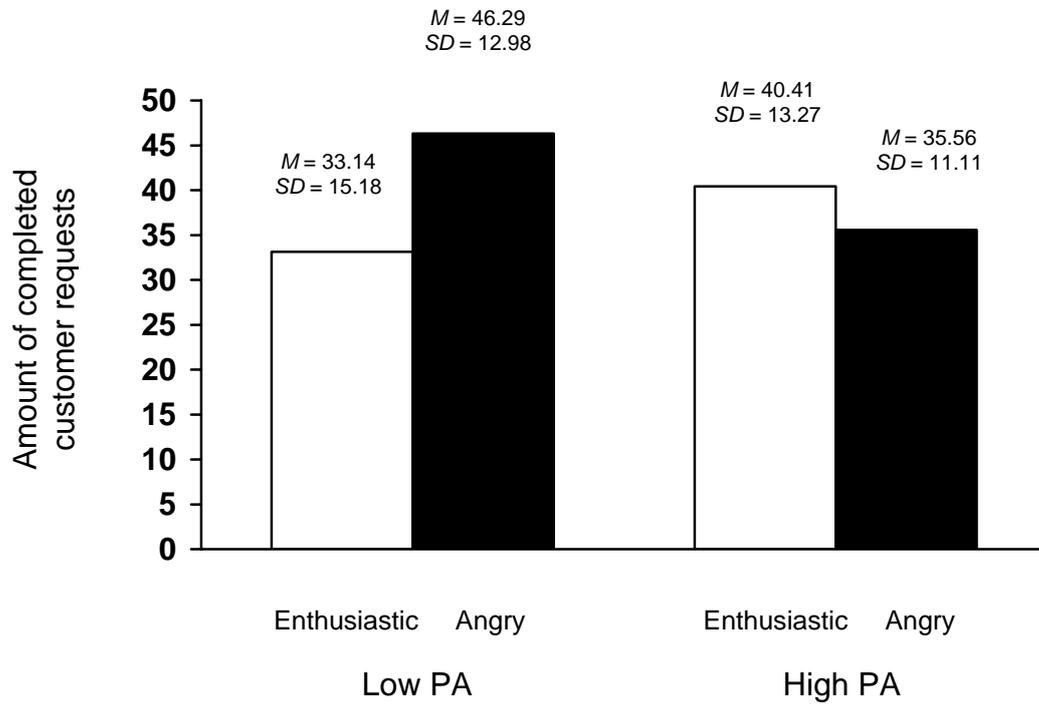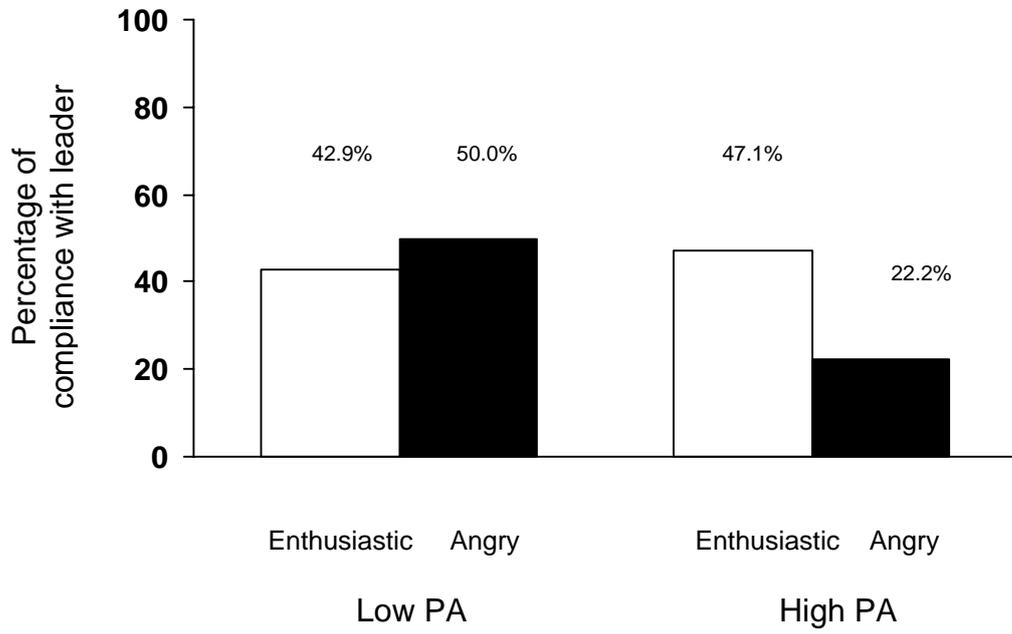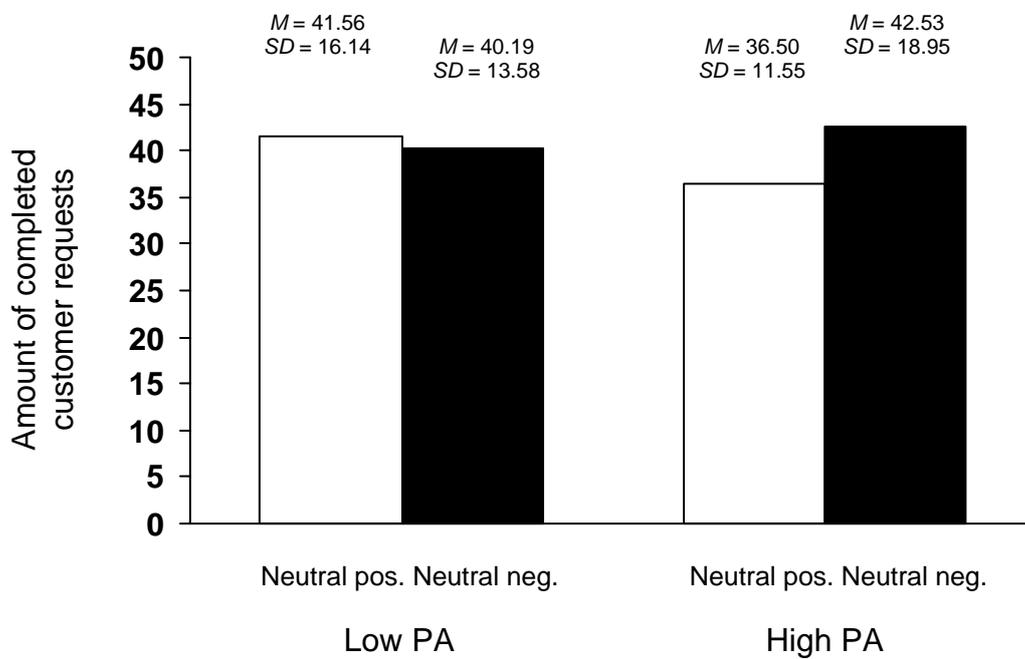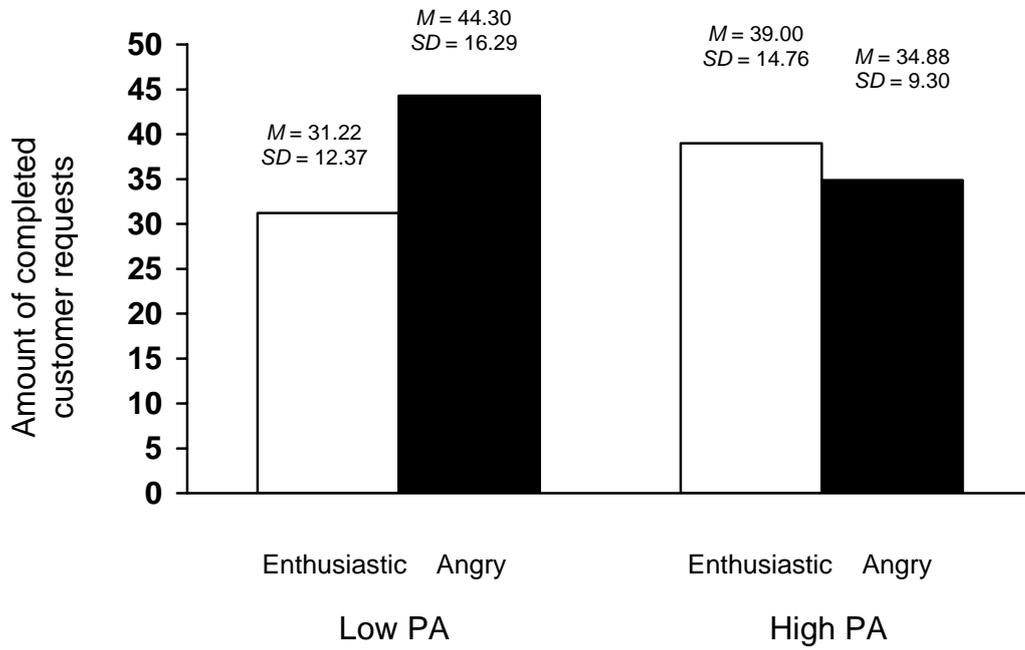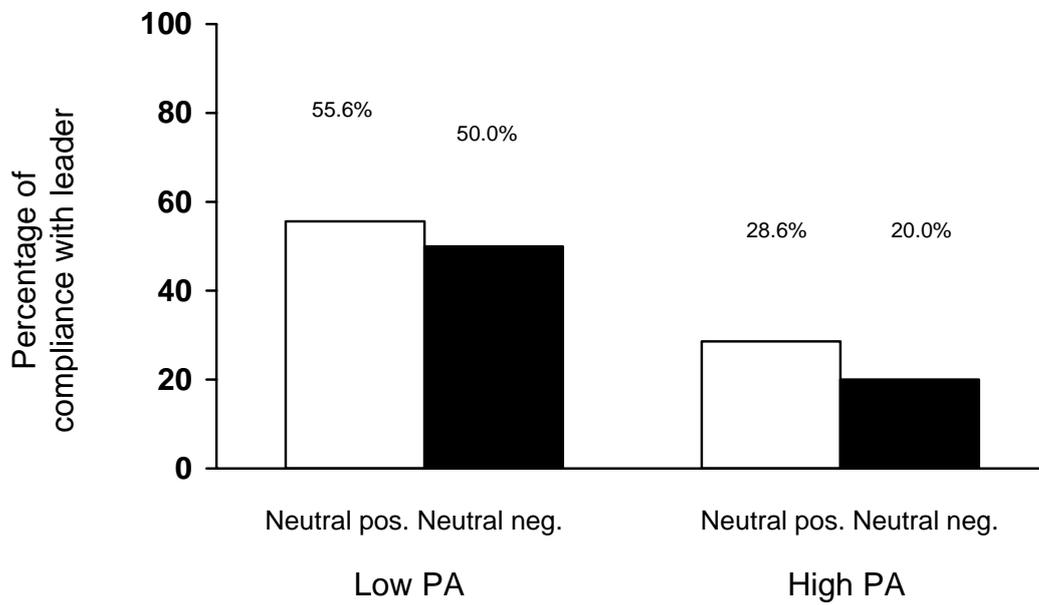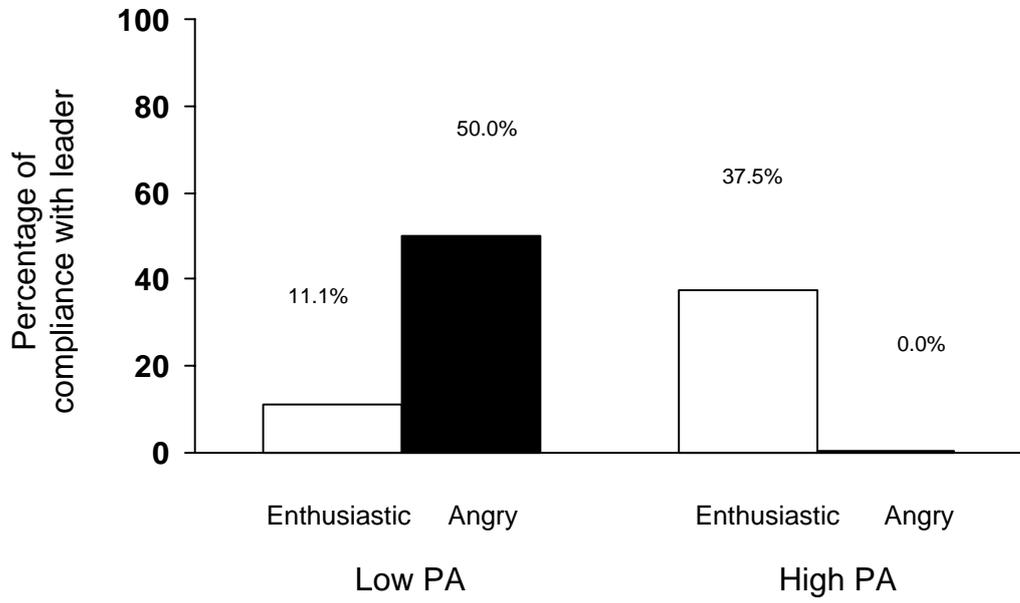
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