Available online at www.sciencedirect.com
SCIENCE DIRECT
The Leadership Quarterly 17 (2006) 79–93
The Leadership Quarterly

Affective and motivational consequences of leader self-sacrifice: The moderating effect of autocratic leadership

David De Cremer *

Department of Economic and Social Psychology, Tilburg University, P.O. Box 90153, 5000-LE Tilburg, The Netherlands

Abstract

The present research examined how self-sacrificial leadership predicts followers' emotional and motivational reactions as a function of how autocratic this leader behaves (i.e., pushing his opinions or not). A scenario experiment and a laboratory experiment were conducted to test the prediction that, in addition to main effects for self-sacrifice and autocratic leadership, the positive effect of self-sacrifice is most strongly when the leader does not act in an autocratic manner. The findings of these two studies supported the predictions. Also, the laboratory experiment showed that the interactive effect on motivation to work with the leader was mediated by followers' emotional reactions. The present results are discussed in light of prior research on self-sacrifice and charismatic leadership in general and suggestions are made that future research needs to focus more on the interactions between different leadership behaviors and the psychological processes underlying these effects.

Keywords: Autocratic leadership; Self-sacrifice; Emotions; Motivation to work

Group and organizational functioning depends to a large extent on how happy and motivated to pursue the collective welfare its members feel (Kelly & Barsade, 2001; Smith, Caroll, & Ashford, 1995). Indeed, recent research has shown that group and organizational members are affected by emotions (Brief, 2001), and that emotions can also be social in nature (Parkinson, 1996). Further, being intrinsically motivated to pursue the welfare of the group or organization is essential to increase the quality of performance and cooperation (De Cremer & Tyler, 2005). Thus, members' emotions and motivation appear to have important implications for groups and organizations, and as such, research is needed to examine how to influence group members in such a way that these positive outcomes are promoted. One important source of influence in a group setting is assumed to be leadership (De Cremer & van Knippenberg, 2002; Dirks & Ferrin, 2002). Indeed, Chemers (2001, p. 376) quite clearly states that "leadership is a process of influence."

Having an extraordinary influence on followers in terms of affect and motivation has been recognized as an important focus in leadership theories. One leader behavior relevant to this issue and which has emerged from the literature on charismatic and transformational leadership is the leader's self-sacrifice (see Choi & Mai-Dalton, 1998, for a review). To date, however, little effort has been done to directly look–in an experimental way–at the relationship between affect, motivation, and self-sacrifice. Further, relatively little is known about the potential

* Fax: +31 13 4662067.
E-mail address: d.decremer@uvt.nl.

1048-9843/$ - see front matter © 2005 Published by Elsevier Inc.
doi:10.1016/j.leaqua.2005.10.005

moderators of the effects of leader self-sacrifice, and especially the possibility that the effectiveness of leader self-sacrifice may be contingent on other aspects of the leader's behavior has hardly received any attention. To address these issues, in the present study, I tested the moderating effect of leader's autocratic behavior during discussions on the effects of self-sacrifice in a scenario experiment and a laboratory experiment. In addition, I studied the role of emotions as a mediating variable in the relationship between this interactive effect and motivation to work with the leader.

1. Self-sacrifice, affect, and motivation

Before addressing the issue of how leader self-sacrifice interacts with other leader behavior, it is necessary to know how self-sacrifice is defined and which effects it exerts among followers. According to Yorges, Weiss, & Strickland (1999, p. 428), self-sacrifice refers to a person's willingness "to suffer the loss of types of things to maintain personal beliefs and values." This behavior is observed particularly among great leaders (Burns, 1978). This notion of self-sacrifice has been elaborated upon in the charismatic and transformational leadership literature and has been identified as one of the core aspects of charismatic leadership (Conger & Kanungo, 1987; Shamir, House, & Arthur, 1993).

Also, the concept of self-sacrifice shows similarities to recent approaches perceiving leaders as those who lead by serving others (e.g., Greenleaf & Spears, 2002–servant leadership), although it remains unclear whether self-interest on the part of the leader is absent or not (see Avolio & Locke, 2002; cf. Bass, 1998). However, as suggested in the communication between Avolio & Locke (2002), leaders high in self-sacrifice are not necessarily acting solely in a self-interested way, because common goals are usually only achieved if some people do indeed sacrifice for the welfare of others.

With respect to exerting influence, literature reviews and empirical studies have shown that leader self-sacrifice lifts up the spirits and hopes of followers through its extraordinary and inspirational nature, which is reflected particularly in the influence it has on followers' emotions and motivation. To date, however, no research has examined the direct effect of self-sacrifice on followers' emotions, and therefore, only the charismatic and transformational leadership literature has proposed suggestions on how charismatic behaviors such as self-sacrifice might affect followers' emotions (see, e.g., Ashkanasy & Tse, 2000).

Indeed, House & Shamir (1993) have suggested that one mechanism underlying the effects of leaders high in charisma (such as self-sacrifice, see Yorges et al., 1999) on follower performance is affect. In support of this, Shamir et al. (1993) demonstrated that perceptions of charisma are positively related to feelings of satisfaction, and survey research by Barling, Weber, & Kelloway (1996) has indicated that the effects of transformational and charismatic leadership are mediated by affective commitment. Finally, evidence also exists that charismatic and transformational leadership behaviors (which include self-sacrifice) are emotion-based and involve heightened emotional levels (Palmer, Walls, Burgess, & Stough, 2001; Yammarino & Dubinsky, 1994).

With respect to the motivational consequences of self-sacrifice, research has provided direct empirical evidence. Indeed, De Cremer & van Knippenberg (2004) demonstrated that self-sacrificial leaders motivate their followers by making clear that the collective and its associated goals and vision are worthy of dedication, which in turn emotionally arouses these followers such that they become highly motivated to work together with and connect to the leader (see also Bass, 1998; Casimir, 2001; Dasborogh & Ashkanasy, 2002, for indirect evidence of this in the charismatic leadership literature). Thus, followers' sense of motivation is strongly influenced by self-sacrificial leaders emphasizing the value of the group goals and vision (cf. Vroom, 1964).

This argument is directly supported by recent research showing that if a leader is perceived to be self-sacrificing, followers are motivated to cooperate with the group because they value the collective interest more (Choi & Mai-Dalton, 1999; De Cremer, 2002; De Cremer & van Knippenberg, 2002; Yorges et al., 1999). Finally, research has also shown that self-sacrificial leaders are able to affect followers' feelings of self and competence (e.g., De Cremer & van Knippenberg, 2004), consequently enforcing intrinsic motivation (cf. Richer & Vallerand, 1995).

Thus, following from the known literature reviews and the small number of studies conducted to date, it should be expected that leaders high in self-sacrifice have strong positive effects on both followers' emotions and motivation. However, in the present research, I wish to argue that these effects may not always be observed, and therefore, research is required to examine more specifically when leader's self-sacrifice is more effective in affecting these important follower reactions (see also Shea & Howell, 1999; Yukl, 1999). In the following paragraph, I will argue that one specific variable that may act as such a moderator is whether the leader behaves in an autocratic way or not.

2. Autocratic leadership as a moderator of self-sacrifice

In the present article, it is argued that we need to focus on interactive effects of leader behavior (see also Casimir, 2001, for a similar argument). Indeed, with respect to the effect of self-sacrifice, the possibility that the effectiveness of a particular leadership behavior may be contingent on other aspects of the leader's behavior has received very little attention (De Cremer & van Knippenberg, 2002; Kirkpatrick & Locke, 1996). Therefore, in an attempt to break new ground for research in leadership and self-sacrifice, the present study focuses on the hypothesis that the effectiveness of leader self-sacrifice is contingent on another aspect of the leader's behavior. The type of leader behavior under investigation in the present research will be the level of autocratic action of the leader. The choice for autocratic leadership behavior is motivated by the fact that research has shown that this leadership style influences people's affect and motivation.

Moreover, leaders may exhibit self-sacrifice to pursue important goals and visions, but in order to increase our understanding of the effects of self-sacrifice, it is also important to examine whether these goals and visions have been forced upon by the leader itself or not. In other words, it is important to examine the effect of whether the leader makes decisions in a pushy and autocratic manner or not before actually exhibiting self-sacrifice.

The leadership literature (Bass, 1990; Lewin, Lippit, & White, 1939; Vroom & Yetton, 1973; Yukl, 1999) generally identifies autocratic leadership as not taking care of the socio-emotional dimensions of groups such as maintaining group cohesion and promoting the group as a viable social entity (Bass, 1990; Cartwright & Zander, 1968; Hackman, 1990), although circumstances softening these negative effects exist (Foels, Driskell, Mullen, & Salas, 2000).[1] More precisely, autocratic leaders score particularly low on the factor of consideration as identified by the Ohio State studies (Judge, Piccolo, & Ilies, 2004). This factor of consideration is strongly related to satisfaction, motivation, and effectiveness (see Judge et al., 2004), which is particularly interesting because it points out the relatively negative effects on the dependent variables under investigation in the present research: followers' emotions and motivation. Empirical evidence indeed shows that autocratic leaders negatively influence group stability and effectiveness (Van Vugt, Jepson, Hart, & De Cremer, 2004), group climate, and feelings of being content and happy (Bass, 1990).

Followers are thus negatively aroused, which holds that people do not favor autocratic leaders because these leader types do not motivate followers to exhibit loyalty and dedication toward the leader and the group. This conclusion is in line with a motivational account suggesting that followers' dedication and connectedness to the leader is only promoted if they are positively aroused (Bass, 1998), which is not the case for autocratic leaders. In fact, under such circumstances as autocratic leadership, recent research has shown that subsequent actions by these leaders will be attended to less by the group and its members, because they are no longer motivated to connect to the leader (see De Cremer, 2004). Thus, if a leader is not autocratic, group members will feel attachment toward the group, and followers will therefore be focused on the subsequent behavior that the group leader displays. Conversely, if a leader is seen as autocratic, subsequent self-sacrificial behavior is believed to influence followers' reactions much less.

The reason for the above is that autocratic leaders are often seen as limiting group members' control and voice over the decision-making processes within the group and as displaying a dominating and pushy leader style in which they show little respect towards followers' opinions and values (Bass, 1990; Russell & Stone, 2002; see also Peterson, 1997). In the present study, autocratic leadership is thus defined in terms of how dominant and controlling the leader is in the process of discussing opinions and ideas leading to the actual decision taken in the group. In this situation, a pushy and controlling leader style is expected to discourage followers' loyalty and dedication to the leader.

This perspective has also been put forward by Peterson (1997), who argued that, following Lewin's studies (e.g., Lewin et al., 1939), autocratic leadership has mainly been described in terms of the leader making all the decisions. However, Peterson argued that autocratic leadership is also defined in terms of how the leader directs and behaves during the process leading up to the decision. That is, Peterson argues that autocratic leadership often reveals negative

[1] Foels et al. (2000) found a small tendency for groups to be more satisfied with democratic vs. autocratic leadership, but the strength of this relationship was a function of a variety of moderators such as the reality of the groups, group size, gender composition of the group and so forth. These moderating variables fit well with the argument that in situations requiring a direct and forceful response, autocratic leaders may be more wanted and respected than those with democratic leadership styles. However, the aim here is not to focus on these specific or more extreme social settings dictating autocratic leadership, but to examine the moderating effect of autocratic leadership in task situations in which autocratic behaviour is regarded as less satisfying due to its pushing nature.

consequences because these leaders, in the process of making a decision, do not allow discussions of all alternatives and are determined to push their followers to accept the leaders' solutions. In line with this line of reasoning, Peterson's results showed indeed that mainly leaders pushing their ideas during a group discussion were particularly seen as negative and autocratic. As such, here, I will operationalize autocratic leadership by defining it as a leadership style focused on not providing any latitude for the group members to discuss and think about their own ideas. Rather, these leaders push their ideas and opinions during discussions leading to a decision, thus, not giving much voice, control and respect to others.

3. The present research

Taken together, I predict that leader self-sacrifice and autocratic leadership interact in determining followers' emotions and motivation such that the effects of self-sacrifice are stronger when the leader is not seen as autocratic. Although the main focus of the present study was on this interaction effect, I also included hypotheses about the main effects of self-sacrifice and autocratic leadership, because there is still limited experimental evidence for the effects of self-sacrifice (De Cremer, 2002; De Cremer & van Knippenberg, 2002; Yorges et al., 1999) and autocratic leadership (Peterson, 1997). Testing these main effects is therefore valuable.

Hypothesis 1. Self-sacrificing leaders, relative to self-benefiting leaders, will positively influence followers' emotions and motivation to work together with the leader.

Hypothesis 2. Leaders pushing their opinion (high autocratic), relative to not pushing (low autocratic), will negatively influence followers' emotions and motivation to work together with the leader.

Hypothesis 3. Leader self-sacrifice and autocratic leadership interact, such that the predicted effect of self-sacrifice on emotions and motivation will be stronger when leaders are not pushing their opinion (low autocratic) vs. pushing their opinion (high autocratic).

As mentioned earlier, the dependent variables in the present study will be emotion and motivation measures. Emotional reactions in relationship to leadership have very recently been put on the research agenda (see, e.g., Humphrey, 2002), and some leadership theorists have indeed clearly spelled out the influence of leaders on follower's emotional reactions (e.g., Bass & Avolio, 1994; Yammarino, Spangler, & Bass, 1993). Leaders have the important task of managing people and, therefore, knowing, for example, that people consistently experiencing negative moods are often no longer motivated to stay in the group or organization (Brief, 2001), points out that leadership research urgently needs to include emotional components.

A theoretical reason for why emotions may have such an important role within organizations is that they may underlie followers' motivation. This assumption fits well with Tesser, Wood, & Stapel's (2002, p. 6) argument that "emotion is an integral facet of motivation," and is also in line with the recent feeling-is-for-doing approach (Zeelenberg, 2002; Zeelenberg & Pieters, in press). According to the latter approach, emotions are seen as directing behavior because they have motivational consequences.

That is, it is argued that the emotions that people experience guide their actions by means of affecting their motivation to display specific types of behavior. For example, if people are emotionally aroused by a leader in a positive way, they will be motivated to maintain or develop a positive social interaction and consequently display motivation to engage in positive and productive behaviors towards the leader (cf. Shiota, Campos, Keltner, & Hertenstein, 2004). With respect to the present study, this means that if followers experience positive emotions, they should become more motivated to display positive behaviors such as working together with the leader (see Fig. 1).

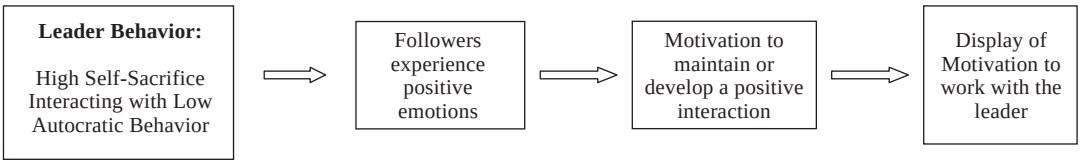

Fig. 1. A graphic presentation of the proposed relationships between self-sacrifice, autocratic leadership, followers' emotions and motivation to work with the leader.

Moreover, examining emotions as mediating motivation is useful, particularly in light of the fact that leadership research has been criticized for establishing relationships between leader behavior and a variety of dependent measures without providing evidence of the process through which these effects come about (Hunt, 1999; Yukl, 1999). An important feature of the present study, then, is that it also focused on the process mediating the effects of leader self-sacrifice and autocratic leadership on motivation.

Hypothesis 4. Emotions mediate the interactive effect of leader self-sacrifice and autocratic leadership on motivation.

Evidence for causality in the relationship between leadership and effectiveness criteria is scarce. Given that reverse causality often provides a plausible alternative explanation for observed relationships between leadership and effectiveness criteria, the scarcity of experimental research is an important impediment to the development of leadership theories (Brown & Lord, 1999; Yukl, 1999). Accordingly, the present hypotheses should preferably be tested in controlled experiments. Therefore, I tested the main hypotheses in two different types of studies: A scenario experiment (study 1), and a laboratory experiment (study 2). Both the scenario experiment and the lab experiment allow us to draw conclusions concerning causality. They complemented each other in that the scenario experiment allow us to maintain a higher degree of mundane realism than the lab experiment, whereas the lab experiment in contrast to the scenario allowed us to study people that were actually immersed in the leadership situation (i.e., yielding higher experimental realism). Study 1 was a first test of our hypotheses on emotional reactions, whereas study 2, as a laboratory study, also tested the predictions concerning motivation.

4. Study 1

4.1. Method

4.1.1. Participants and design

One hundred and three undergraduate students at a Dutch university participated voluntarily and were paid 2 euros. They were randomly assigned to a 2 (Autocratic leadership: Pushing vs. not pushing opinion) × 2 (Self-sacrifice: sacrifice vs. benefit) between-subjects factorial design.

4.1.2. Procedure

Participants were approached by a research assistant (in the student cafeteria) asking them whether they were willing to participate in a scenario study. When they agreed, the experimenter accompanied them to a table in the corner of the cafeteria that was reserved for our research purposes and handed them a booklet containing the scenario. Participants were asked to imagine that they personally had experienced the situation as described in the scenario. Then, participants started reading the scenario.

The scenario first described the consultancy company "CIRCLE." Participants were told that in this company the procedure is that every new assignment is discussed, and that based on this discussion, future steps are developed. It was mentioned that all of this happens within a team. Further, participants were informed that within this team there was a leader, referred to as person X.

Then, the manipulation of autocratic leadership was introduced. This manipulation tried to stay as close as possible to the idea developed in the Introduction (see also Peterson, 1997) that autocratic leadership also refers to being controlling and pushy in the process of discussing ideas and opinions leading up to a decision. In the pushing opinion condition, the scenario said:

> "You know that person X is someone who presents his ideas and suggestions during the team discussions, and thereafter tries to push his opinion all the time. During the last team meeting, you noticed that person X indeed was pushing his opinion throughout every stage of the discussion."

In the no-pushing condition, the scenario said:

> "You know that person X is someone who presents his ideas and suggestions during the team discussions, and thereafter does not push his opinion all the time. During the last team meeting, you noticed that person X indeed refrains from pushing his opinion throughout every stage of the discussion."

Thereafter, the manipulation of self-sacrifice was introduced (modeled after previous research; see Choi & Mai-Dalton, 1999; De Cremer, 2002, Yorges et al., 1999). In the self-sacrifice condition, the scenario said:

> "During these meetings you also notice that person X engages often in the act of self-sacrifice. That is, he puts a lot of time (even his own personal time) in the assignments and he participates in additional courses to remain up to date in the fields that are discussed during the team meetings. He also works long hours and he does not hold back from investing personal monetary bonuses into the team projects, whenever this seems necessary."

In the self-benefiting condition, the scenario said:

> "During these meetings you also notice that person X tries to personally benefit from the situation at hand. That is, he does not put a lot of time in the assignments and he never thinks about participating in additional courses to remain up to date in the fields that are discussed during the team meetings. He never works long hours and he would never consider investing personal monetary bonuses into the team projects, even when this seems necessary."

Then, the dependent measures of study 1 were solicited. All questions were answered on a 7-point scale (1= not at all, 7= very much so). To test whether the manipulation of self-sacrificing vs. benefiting behavior was successful, I followed up the measures of Yorges et al. (1999) and as such asked participants two questions: "To what extent does this leader show self-sacrificing behavior?" and "To what extent does this leader show self-benefiting behavior?" To test whether the autocratic leadership manipulation was successful, participants were also asked two questions: "To what extent does this leader push his opinions?," and "to what extent do you consider person X to be an autocratic leader?" Thereafter, participants' emotional reactions were assessed.

Because research has shown that situations can produce widely different emotions (Mikula, Scherer, & Athenstaedt, 1998), it is necessary that both positive and negative emotions be assessed (see Watson, Clark, & Tellegen, 1988, for more details). As such, I asked participants to what extent they were "happy," "satisfied," "joyful," "angry (reverse-coded)," and "disappointed (reverse-coded)" with this leader. Research has shown that the negative items are part of the category anger, which is a dominant negative emotion (see Berkowitz, 1999), and that the positive items used are central to people's positive feelings and mood in social relationships (Baumeister & Leary, 1995).

In addition, these items have also successfully been applied in prior research (see De Cremer, 2004; De Cremer & Alberts, 2004). In line with the recommendations of Ford, MacAllum, & Tait (1986), a factor analysis on these items, first of all, revealed a one-factor solution with an eigenvalue of 3.87, with 77.4% of the variance accounted for. Further, the factor loadings and descriptive statistics of each of the emotions were happy (factor loading=.94, $M=3.28$, $SD=1.89$), satisfied (factor loading=.94, $M=3.20$, $SD=1.88$), joyful (factor loading=.93, $M=3.22$, $SD=1.69$), angry (R) (factor loading=.77, $M=3.70$, $SD=1.73$), and disappointed (R) (factor loading=.78, $M=3.72$, $SD=1.82$). As such, these emotional items were combined to form one average emotion score (Cronbach's $\alpha=.95$). Finally, participants were debriefed, paid, and thanked.

4.2. Results

4.2.1. Manipulation checks

A 2 (Autocratic leadership) × 2 (Self-sacrifice) ANOVA on the question to what extent the leader pushed his opinions yielded a significant main effect for Autocratic leadership, $F(1,99)=136.37$, $p<.001$, $\eta^2=.57$, indicating that the pushing leader was evaluated as more pushy than the non-pushing leader (Ms=5.93 vs. 2.82, SDs=0.90 and 1.69, respectively). Neither the main effect of Self-sacrifice, $F(1,99)=1.41$, $p>.23$, nor the interaction, $F(1,99)<1$, was significant.

A 2 × 2 ANOVA on the question to what extent the leader was autocratic yielded a significant main effect for Autocratic leadership, $F(1,99)=32.32$, $p<.001$, $\eta^2=.25$, indicating that the pushing leader was evaluated as more autocratic than the non-pushing leader (Ms=4.92 vs. 3.41, SDs=1.27 and 1.35, respectively). Neither the main effect of Self-sacrifice, $F(1,99)=1.97$, $p>.16$, nor the interaction, $F(1,99)<1$, was significant.

A 2×2 ANOVA on the benefiting question yielded a significant main effect for Self-sacrifice, $F(1,99)=234.12$, $p<.001$, $\eta^2=.70$, indicating that the benefiting leader was evaluated as more benefiting than the self-sacrificing leader (Ms=5.92 vs. 2.20, SDs=1.09, respectively). Also, a main effect of Autocratic leader was found, $F(1,99)=6.24$, $p<.05$, $\eta^2=.06$, indicating that the pushing leader was seen as more self-benefiting than the non-pushing leader (Ms=4.36 vs. 3.76, SDs=2.17 and 2.31, respectively). Most likely, the specific wording of the question may have elicited thoughts that leaders that are pushy are also considered to be greedy in terms of advocating their own ideas and as such are perceived as more self-benefiting. In addition, effect sizes clearly show that the manipulation of self-sacrifice exerted a much stronger influence. The interaction was not significant, $F(1,99)<1$.

A 2×2 ANOVA on the self-sacrifice question yielded a significant main effect for Self-sacrifice, $F(1,99)=543.03$, $p<.001$, $\eta^2=.84$. A sacrificing leader was perceived to be more sacrificing than a self-benefiting leader (Ms=6.06 vs. 1.96, SDs=0.91 and 0.92, respectively). Also, a significant effect of Autocratic leadership was found, $F(1,99)=8.03$, $p<.01$, $\eta^2=.07$, indicating that the non-pushing leader was evaluated as more self-sacrificing than the pushing leader (Ms=4.26 vs. 3.76, SDs=2.28 and 2.21, respectively). Most likely, this question may have elicited thoughts that leaders that are not pushy are also considered willing to sacrifice for the group. In addition, effect sizes clearly show that the manipulation of self-sacrifice exerted a much stronger influence. The interaction was not significant, $F(1,99)<1$.

4.2.2. Emotional reactions

A 2×2 ANOVA on the average emotion score revealed a significant main effect of Autocratic leadership (Hypothesis 1), $F(1,99)=45.83$, $p<.001$, $\eta^2=.31$, showing that a leader not pushing his opinions elicited higher positive emotions than a leader pushing his opinions (Ms=4.12 vs. 2.81, SDs=1.69 and 1.14, respectively). Also, a significant main effect of Self-sacrifice was found (Hypothesis 2), $F(1,99)=108.78$, $p<.001$, $\eta^2=.52$: Leaders in the self-sacrifice condition elicited higher positive emotions among participants than leaders in the self-benefiting condition (Ms=4.48 vs. 2.45, SDs=1.48 and 0.88, respectively). Finally, an interaction effect emerged (Hypothesis 3), $F(1,99)=8.85$, $p<.005$, $\eta^2=.08$ (see Table 1).

Within the condition in which the leader did not push his opinions (low autocratic), emotional reactions were significantly stronger influenced by the self-sacrifice manipulation, $F(1,99)=87.45$, $p<.001$, $\eta^2=.47$, than in the condition in which the leader did push his opinions, $F(1,99)=28.57$, $p<.001$, $\eta^2=.22$ (see effect sizes). In the self-sacrifice condition, the effect of autocratic leadership was significantly stronger, $F(1,99)=46.22$, $p<.001$, $\eta^2=.32$, than in the self-benefiting condition, $F(1,99)=7.40$, $p<.01$, $\eta^2=.07$.

5. Study 2

As expected, the findings of Study 1 confirmed the expectations: Both leader self-sacrifice and autocratic leadership influenced people's emotional reactions independently. More important, however, the results also showed that the effect of self-sacrifice (i.e., higher positive emotions when the leader was perceived as sacrificing rather than benefiting) was particularly strong when the leader did not act in an autocratic manner.

To my knowledge, this is the first demonstration of the interactive effect of self-sacrifice and autocratic leadership and one of the first of the interactive effects of different aspects of leader behavior (cf. De Cremer & van Knippenberg, 2002). Another important aspect of Study 1 is that it allows us to establish causality in this relationship. Study 2 aimed to extend these findings by manipulating the two leadership elements in a controlled laboratory setting, where I created ad hoc groups doing a group task with a leader appointed to regulate and

Table 1
Means and standard deviations of emotional reactions as a function of autocratic leadership and self-sacrifice (study 1)

Dependent variables	Autocratic leadership	Self-sacrifice	
		Self-sacrifice	Benefiting
Emotional reactions	Pushing opinions	**3.53** (1.12)	**2.08** (0.60)
	Not pushing opinions	**5.43** (1.16)	**2.82** (0.98)

Entries in bold are means on 7-point scales, with higher values indicating higher positive emotions. Entries between parentheses are standard deviations.

monitor the outcomes of this task. This set-up allowed for an experimental test in which, in contrast to the scenario experiment, participants were actually immersed in the leadership situation. In addition, Study 2 also aimed to examine whether the interactive reaction between self-sacrifice and autocratic leadership influences people's motivation and whether this effect is mediated by people's emotional reactions.

5.1. Method

5.1.1. Participants and design

Forty-nine (30 women and 19 men) Dutch undergraduate students (average age = 20.83 years, $SD = 2.42$ years) participated voluntarily and were each paid 2 euros. They were randomly assigned to a 2 (Autocratic leadership: pushing opinions vs. not pushing opinions) × 2 (Self-sacrifice: sacrifice vs. benefiting) between-subjects factorial design.

5.1.2. Procedure

Students sitting in the student cafeteria were invited by a research assistant to participate in a study examining brainstorming. If students agreed, they were taken to a separate table in the cafeteria and they were seated. Then, they were told that as a first part of this study, they would initially receive instructions about a task that they would have to do in a later phase of the experiment. In addition, they were also told that in this later phase, they would have to work together with a leader (who they would then see face-to-face), and therefore, they would also be given personal information about this leader. It was said that after carefully reading this information, they would be taken (by the experimenter) to a different location where the second phase of the experiment would take place.

First, participants read that they would participate in a task in which they, together with some other people (i.e., which they would also meet in the second phase of the study), would have to discuss their ideas and opinions about several recent events that were described in the media (e.g., international and national political affairs). It would be the task of the group to come up with conclusions and statements regarding each of these events. Thereafter, they read that it was important to realize that this group task would be led by a group leader. Therefore, to get some impression of this leader, participants were told that they would receive additional information about this leader before interacting with him.

Then, the manipulation of autocratic leadership was introduced (see Peterson, 1997). Participants were first told that the person that would act as their group leader had already participated a few times in studies like this, and each time this person was appointed as the leader. This way, the experimenters had been able, during the course of these studies, to acquire some information about the way this person acts as a leader.

In the pushing opinion condition, participants were told the following:

> "Your leader is someone who has the habit of pushing his ideas and opinions throughout every phase of a discussion. He has shown in the past that he is the 'pushy' type."

In the no-pushing condition, the scenario said:

> "Your leader is someone who does not have the habit at all of pushing his ideas and opinions throughout every phase of a discussion. He has shown in the past that he definitely is not the 'pushy' type."

Thereafter, the manipulation of self-sacrifice was introduced (again modeled after Choi & Mai-Dalton, 1999, De Cremer, 2002; Yorges et al., 1999). In the self-sacrifice condition, participants were told the following:

> "It also attracted our attention that this leader often engaged in self-sacrificing acts for the welfare of the group. He always gives of himself 100% and sacrifices a lot for this. For example, he has shown that he will always stay longer after a study to make sure that the group has done the tasks well. Moreover, if necessary, he also has shown that he is willing to put his own money or something else in the group tasks in order to succeed."

In the self-benefiting condition, the scenario said:

> "It also attracted our attention that this leader never engaged in self-sacrificing acts for the welfare of the group. He never gives of himself 100% and does not sacrifice anything for this. For example, he has shown that he will

not stay longer after a study to make sure that the group has done the tasks well. Moreover, if it is important to the group, he has shown that he is not willing to put his own money or something else in the group tasks in order to succeed."

After having finished reading the information about the leader, participants were told that before starting the second part of the experiment, they would have to answer some questions. All questions were answered on a 7-point scale (1= not at all, 7= very much so). To test the effectiveness of the self-sacrifice manipulation, the same two questions as in study 1 were asked. Then, to test whether the autocratic leadership manipulation was successful, the same two questions as in study 1 were asked. Thereafter, participants' emotional reactions were assessed by asking them to what extent they were "happy", "satisfied", "joyful", and "disappointed (reverse-coded)" that they would interact with such a leader (see De Cremer, 2004; De Cremer & Alberts, 2004). A factor analysis on these items revealed a one-factor solution with an eigenvalue of 3.39, with 84.8% of the variance accounted for. Further, the factor loadings and descriptive statistics of each of the emotions were happy (factor loading=.94, M=3.89, SD=1.37), satisfied (factor loading=.94, M=3.89, SD=1.79), joyful (factor loading=.95, M=3.61, SD=1.55), and disappointed (R) (factor loading=.84, M=4.38, SD=1.56). These items were combined to form one average emotion score (Cronbach's α=.93). To conclude, participants were asked to what extent they were motivated to work together with this leader for the sake of the group (taken from De Cremer & van Knippenberg, 2004). Finally, participants were debriefed, paid, and thanked.

5.2. Results

5.2.1. Manipulation checks

A 2 (Autocratic leadership) × 2 (Self-sacrifice) ANOVA on the question to what extent the leader pushed his opinions yielded a significant main effect for Autocratic leadership, $F(1,45)=112.20$, $p<.001$, $\eta^2=.71$, indicating that the pushing leader was evaluated as more pushy than the non-pushing leader (Ms=5.53 vs. 1.90, SDs=1.42 and 0.84, respectively). Neither the main effect of Self-sacrifice, $F(1,99)<1$, nor the interaction, $F(1,99)<1$, was significant.

A 2 × 2 ANOVA on the question to what extent the leader was autocratic yielded a significant main effect for Autocratic leadership, $F(1,45)=13.58$, $p<.001$, $\eta^2=.23$, indicating that the pushing leader was evaluated as more autocratic than the non-pushing leader (Ms=4.69 vs. 3.27, SDs=1.28 and 1.35, respectively). Neither the main effect of Self-sacrifice, $F(1,45)<1$, nor the interaction, $F(1,45)=1.14$, $p>.29$, was significant.

A 2 × 2 ANOVA of the benefiting question yielded a significant main effect for Self-sacrifice, $F(1,45)=33.97$, $p<.001$, $\eta^2=.70$, indicating that the benefiting leader was evaluated as more benefiting than the self-sacrificing leader (Ms=4.79 vs. 2.44, SDs=1.52 and 1.32, respectively). Neither the main effect of Autocratic leadership, $F(1,45)=1.30$, $p>.25$, nor the interaction, $F(1,45)=2.03$, $p>.16$, was significant.

A 2 × 2 ANOVA of the check on the self-sacrifice question yielded a significant main effect for Self-Sacrifice, $F(1,45)=94.10$, $p<.001$, $\eta^2=.67$. A sacrificing leader was perceived to be more sacrificing than a self-benefiting leader (Ms=6.04 vs. 2.70, SDs=0.67 and 1.60, respectively). Neither the main effect of Autocratic leadership, $F(1,45)=2.26$, $p<.15$, nor the interaction, $F(1,45)=1.54$, $p<.22$, was significant.

5.2.2. Emotional reactions

A 2 × 2 ANOVA on the average emotion score revealed a significant main effect of Autocratic leadership (Hypothesis 1), $F(1,45)=45.57$, $p<.001$, $\eta^2=.50$, showing that a leader not pushing his opinions elicited higher positive emotions than a leader pushing his opinions (Ms=4.75 vs. 3.19, SDs=1.45 and 0.93; respectively). Also, a significant main effect of Self-sacrifice was found (Hypothesis 2), $F(1,45)=57.35$, $p<.001$, $\eta^2=.56$: Leaders in the self-sacrifice condition elicited higher positive emotions than leaders in the self-benefiting condition (Ms=4.85 vs. 3.09, SDs=1.12 and 1.17, respectively). Finally, an interaction effect emerged (Hypothesis 3), $F(1,45)=4.38$, $p<.05$, $\eta^2=.08$ (see Table 2).

Within the condition in which the leader did not push his opinions (low autocratic), emotional reactions were significantly more strongly influenced by the self-sacrifice manipulation, $F(1,99)=43.99$, $p<.001$, $\eta^2=.49$, than in the condition in which the leader did push his opinions, $F(1,99)=16.01$, $p<.001$, $\eta^2=.26$ (see effect sizes). In the self-

Table 2
Means and standard deviations of emotional reactions and motivation to work with the leader as a function of autocratic leadership and self-sacrifice (study 2)

Dependent variables	Autocratic leadership	Self-sacrifice	
		Self-sacrifice	Benefiting
Emotional reactions	Pushing opinion	**3.82** (0.38)	**2.55** (0.89)
	Not pushing opinion	**5.87** (0.48)	**3.63** (1.24)
Motivation	Pushing opinion	**3.53** (1.61)	**2.53** (1.05)
	Not pushing opinion	**5.75** (0.86)	**3.09** (1.37)

Entries in bold are means on 7-point scales, with higher values indicating higher positive emotions and motivation to work with the leader. Entries between parentheses are standard deviations.

sacrifice condition, the effect of autocratic leadership was significantly stronger, $F(1,99)=40.03$, $p<.001$, $\eta^2=.47$, than in the self-benefiting condition, $F(1,99)=10.60$, $p<.005$, $\eta^2=.19$.

5.2.3. Motivation to work with the leader

A 2 × 2 ANOVA on the motivation score revealed a significant main effect of Autocratic leadership (Hypothesis 1), $F(1,45)=14.63$, $p<.001$, $\eta^2=.24$, showing that a leader not pushing his opinions elicited stronger motivation to work together than a leader pushing his opinions (Ms=4.42 vs. 3.03, SDs=1.75 and 1.42; respectively). Also, a significant main effect of Self-sacrifice was found (Hypothesis 2), $F(1,45)=25.64$, $p<.001$, $\eta^2=.36$: Leaders in the self-sacrifice condition elicited a stronger motivation to work together than leaders in the self-benefiting condition (Ms=4.64 vs. 2.81, SDs=1.70 and 1.21, respectively). Finally, an interaction effect emerged (Hypothesis 3), $F(1,45)=5.27$, $p<.05$, $\eta^2=.10$ (see Table 2).

Within the condition in which the leader did not push his opinions (low autocratic), motivation was significantly more strongly influenced by the self-sacrifice manipulation, $F(1,99)=25.50$, $p<.001$, $\eta^2=.36$, than in the condition in which the leader did push his opinions, $F(1,99)=4.08$, $p<.05$, $\eta^2=.08$ (see effect sizes). In the self-sacrifice condition, the effect of autocratic leadership was significant, $F(1,99)=19.18$, $p<.001$, $\eta^2=.30$, but this was not the case in the self-benefiting condition, $F(1,99)=1.14$, $p>.29$, $\eta^2=.03$.

5.2.4. Mediation analyses

A 2 × 2 ANCOVA on the motivation score, with emotional reactions as a covariate, revealed a significant main effect for the covariate, $F(1,44)=15.26$, $p<.001$, showing that emotion was related to motivation. Importantly, in line with Hypothesis 4, the analysis also revealed that the interaction between Autocratic leadership and Self-sacrifice, $F(1,44)=1.82$, $p>.18$ [i.e., original analysis, $F(1,45)=5.27$, $p<.05$], disappeared. This reduction is significant ($z=1.96$, $p=.05$; cf. Sobel, 1982), suggesting that the interactive effect on motivation was mediated by emotions.

6. Discussion

In line with the expectations, the results showed that participants elicited higher positive emotions and a stronger willingness to work together with the leader when the leader exhibited self-sacrifice rather than self-benefiting behavior, but these effects were considerably stronger when the leader did not act in an autocratic (i.e., pushy) manner. It also has to be noted that in study two, participants were led to believe that they would be participating in an interaction with an actual leader, and therefore, their reactions were not based on their imagined reactions (as in study 1) but rather on how they reacted when placed in this more realistic situation.

The results of study 2 are made all the more compelling since the self-sacrifice and autocratic leadership manipulation did not impact the actual leadership interaction that they experienced in this particular situation but instead simply raised the prospect that they might interact with a high vs. low self-sacrificing leader/pushy vs. not pushy leader. That the predicted pattern of results emerged simply by manipulating the potential for these leadership styles is testament to the sensitivity people have towards leadership behaviors when being involved in a task setting.

An important shortcoming of study 2 is that the dependent variable assessing motivation consisted of a single item measure. In response to this concern, I raise the following two points. First, the results of study 2 are buttressed by the results of study 1, in which highly similar results emerged. The fact that similar results emerged across both studies

strongly suggests that the motivation results of study 2 are not an artifact of the dependent variable consisting of a single item measure. Second, the same item used in study 2 is actually one of four items used to measure motivation to work together with charismatic leaders in another leadership study (De Cremer & van Knippenberg, 2004). The other three items in that study were (1) "To what extent will you cooperate with this leader?," (2) "To what extent will you support this leader?," and (3) "To what extent will this leader make this group perform well?" Importantly, all four items were highly interrelated, as indicated by the coefficient alpha of .88. Thus, the single item measure used in study 2 is highly related to other face valid measures of working together with a leader in a task setting. Nevertheless, future research would be better served by the use of multi-item or, more generally, other sorts of measures with proven construct validity.

7. General discussion

The functioning of organizations and groups depend, at least to a certain degree, on how effectively members' emotions and motivation to work can be influenced (Kelly & Barsade, 2001; Smith et al., 1995). In this respect, leadership as a tool of social influence plays an important role. The present research examined the effectiveness of a leader's self-sacrifice in affecting followers' emotions and motivation, a leadership style recently championed as an effective form of leadership (Choi & Mai-Dalton, 1998; De Cremer & van Knippenberg, 2002; Yorges et al., 1999). In addition, because leadership represents a rather complex integration of different behaviors, the moderating effect of an autocratic leadership style was also examined.

The first important finding of the present research concerns the interaction between leader's self-sacrifice and autocratic leadership. Consistent across two studies, self-sacrifice had stronger effects on both emotions and motivation to work with the leader when the leader was not autocratic. Autocratic leadership styles negatively influence emotions and relationships within groups, particularly because they relate negatively to the dimension of consideration (Judge et al., 2004), in a way where they limit other's control during the decision-making processes and show little respect toward others (Bass, 1990; Russell & Stone, 2002). Therefore, followers do not connect to the leader and are not motivated to attend to subsequent actions by such a leader (see De Cremer, 2004), making that leader's self-sacrifice exert much less influence. This finding is important, because it is the first causal demonstration of how self-sacrifice combines with another more traditional leadership behavior such as autocratic leadership. Indeed, many leadership studies have been correlational and, as such, did not provide adequate evidence for the validity of the different leadership components (e.g., Wofford, 1999).

Further, it is, of course, also important to identify contingencies of the effectiveness of self-sacrificial behavior—especially because self-sacrifice is, in principle, under the leader's volitional control, and insights into the working of leader self-sacrifice may thus feed relatively easily into organizational practice. Therefore, identifying leader displays of autocratic behavior as a moderator of the effectiveness of self-sacrificial behavior is useful (see also Casimir, 2001). As such, the present findings thus point to the value of studying the interactive effects of different leader behaviors.

A second important finding was that this interactive effect influenced people's motivation to work with the leader and that this effect was mediated by followers' emotional reactions. In line with prior research on motivation and leadership, when the leadership style was not autocratic, self-sacrificial leadership emotionally aroused followers and consequently motivated them to connect to and work with the leader (cf. Bass, 1998; Dasborogh & Ashkanasy, 2002). Thus, if self-sacrificing leader behavior positively emotionally arouses followers, then they will be motivated to maintain/develop the social interaction and display a motivation to work with the leader (see Fig. 1).

As such, the mediating data have several implications for leadership research. First, they show that leadership is not only important in managing group and organizational structures, but also people's emotional states. Indeed, ever since the introduction of the dichotomy task vs. relationship leaders, researchers have been aware of the emotional consequences of leadership, but this belief has been covered up for a long time by their focus on cognition. As such, "research into the relationship between emotions and leadership is only just beginning" (Humphrey, 2002, p. 502). The present research is thus among the first to address this relationship empirically (for a recent exception, see Dvir, Kass, & Shamir, 2004). Indeed, recently, Dvir et al. (2004, p. 126) argued that "there has been surprisingly little empirical research focusing on the relationships between... charismatic... leadership and followers' emotions in general."

Moreover, the findings clearly show that emotions and motivation are intrinsically linked (Tesser et al., 2002), and this shows, at least in my view, that future research should pay closer attention to the relationship between these two

concepts. Indeed, historically, emotions have been examined particularly in relationship to cognition because cognitive processes were seen as necessary in understanding and controlling emotions (see Zajonc, 1998). However, recent research on people's self-conceptions has shown that people's motivations such as the tendency to self-enhance and to self-evaluate can also reveal strong emotional reactions (see, e.g., Sedikides & Strube, 1997).

Further, researchers in the realm of charismatic leadership have also pointed out that emotions are an integral aspect of group and organizational life, and as such, the pervasive effects of charismatic leaders on followers prosocial behaviors and motives does have to include an emotional component (see Ashforth & Humphrey, 1995; Cherulnik, Donley, Wiewel, & Miller, 2001; Dasborough & Askanasy, 2002). However, at the same time, research in charismatic leadership has been criticized for providing little information about the possible mechanisms through which leader behavior influences group member behavior (e.g., Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Yukl, 1999). The finding that emotional reactions mediated the interactive effect of self-sacrifice and autocratic leadership thus responds to this call by identifying followers' emotions as a process through which self-sacrifice (as a charismatic behavior) affects followers' motivation.

Some limitations have to be outlined as well. The present two studies focused on self-sacrificial behavior, which has been referred to as one of the key behaviors displayed by charismatic leaders (Conger & Kanungo, 1987). However, self-sacrifice is only one specific way to operationalize charismatic leadership. Indeed, the key behaviors in the House (1977), Conger & Kanungo (1987), and Shamir et al. (1993) theories include, in addition to self-sacrifice, behaviors such as articulating a vision, communicating high-performance expectations, emphasizing ideological aspects of the work, and showing sensitivity to members' needs. Therefore, to explore whether the present findings have direct implications for the charismatic leadership literature, future research also needs to test the interactive effects of these components with autocratic leadership. Moreover, in light of the present results, this research will also need to determine which key behaviors are most predictive of the underlying process of emotions.

Another potential limitation is the use of "paper leaders". In study 1 a scenario was employed, which poses the problem that people may not perceive the manipulated leader behaviors and the social setting as real. In addition, a scenario study also elicits questions of external validity among its readership, as such arguing for future research examining the present interactions in a field setting. However, the issue of perceiving the social setting under investigation as real was accounted for, at least partly, by study 2, in which participants were confronted with an actual performance setting. Of course, in study 2, participants did eventually not meet up with this leader, still implying that a paper leader was used, a practice that some time ago was criticized by Campbell (1977). As such, it leaves open the possibility that the present results would have been stronger if leader behavior would have been manipulated in a face-to-face interaction.

However, a couple of reasons exist to believe that the results of such a study would have revealed quite similar results, thus attesting to the validity of the present results. First, in contemporary organizations, communications between followers and leaders do not always take the form of a face-to-face interaction; rather, messages or expectations are communicated by means of memos, notes, or even gossip (Choi & Mai-Dalton, 1999). Thus, using such a methodology of real performance settings with anticipated leader interactions and communications via notes is representative of many organizational situations. Second, combinations of scenario research, laboratory research, and actual field studies typically reveal similar results (see, e.g., De Cremer & van Knippenberg, 2002; Dipboye, 1990).

In study 2, motivation was assessed by means of an item referring to followers' willingness to work together with the leader. Prosocial behavior is, of course, an important motivational display in organizations (De Cremer & Van Knippenberg, 2002), but many other organizational instances exist that can be considered as displays of motivation and as such should be taken into account as well when testing the predicted interactions of the present research. For example, motivation may also reflect followers' willingness to exit the relationship with the leader or their motivational tendencies to reduce status and power distance and so forth. For the time being, the fact that I did not assess such additional motivational displays should be regarded as a limitation to the conclusions of the present research.

A final issue that needs to be acknowledged is that the present studies made use of university students as participants. As mentioned earlier, for reasons of external validity, future research examining similar interactive leader effects would do best to conduct similar studies also in the field using organizational employees as participants. However, in line with claims asking for more controlled experimental research in leadership studies (Brown & Lord,

1999), it is noteworthy that most experimental research has used university study as participants and often reveals results similar to studies conducted among employees (Dipboye, 1990).

Finally, the present research identified emotions mediating the interaction between self-sacrifice and autocratic leadership on motivation, but this does not mean that other potential mediators might not also play a role. For example, research should examine to what extent a self-sacrificing or autocratic leader may install feelings of collective identification. Indeed, recent research has revealed evidence that the positive effect of self-sacrifice (also in interaction with other leader behaviors) is mediated by feelings of collective identification, particularly in relationship to measures of cooperation and leadership effectiveness (De Cremer & van Knippenberg, 2002, 2004). Both leader's self-sacrifice and autocratic behavior may also influence self-efficacy among followers, allowing them to be more confident in translating motivations into actual behaviors. Future research assessing a broader range of potential mediators might make an interesting contribution to our understanding of the processes underlying the influence of self-sacrifice (as a function of other leader behaviors) on followers' reactions.

Acknowledgement

This research was supported by a fellowship of the Netherlands Organization for Scientific Research (NWO, Grant No. 016.005.019).

References

Ashforth, R. E., & Humphrey, R. H. (1995). Emotion in the workplace: A reappraisal. *Human Relations*, *48*, 97–125.

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

Avolio, B. J., & Locke, E. E. (2002). Contrasting different philosophies of leader motivation: Altruism versus egoism. *The Leadership Quarterly*, *13*, 169–191.

Barling, J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership training on attitudinal and financial outcomes: A field experiment. *Journal of Applied Psychology*, *81*, 827–832.

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research and managerial applications*. New York: Free Press.

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

Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage Publications.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.

Berkowitz, L. (1999). Anger. In T. Dalgleish, & M. Power (Eds.), *Handbook of cognition and emotion* (pp. 411–428). West Sussex, England: John Wiley & Sons.

Brief, A. P. (2001). Organizational behavior and the study of affect: You're your eyes on the organization. *Organizational Behavior and Human Decision Processes*, *86*, 131–139.

Brown, D. J., & Lord, R. G. (1999). The utility of experimental research in the study of transformational/charismatic leadership. *The Leadership Quarterly*, *10*, 531–539.

Burns, J. M. (1978). *Leadership*. New York: Harper & Row.

Campbell, J. P. (1977). The cutting edge of leadership: An overview. In J. G. Hunt, & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 221–234). Carbondale, IL: Southern Illinois University Press.

Cartwright, D., & Zander, A. (1968). *Group dynamics*. New York: Harper and Row.

Casimir, G. (2001). Combinative aspects of leadership style: The ordering and temporal spacing of leadership behaviors. *The Leadership Quarterly*, *12*, 245–278.

Chemers, M. M. (2001). Leadership effectiveness: An integrative review. In M. A. Hogg, & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 376–399). Oxford, UK: Blackwell.

Cherulnik, P. D., Donley, K. A., Wiewel, T. S. R., & Miller, S. R. (2001). Charisma is contagious: The effect of leaders' charisma on obervers' affect. *Journal of Applied Social Psychology*, *31*, 2149–2159.

Choi, Y., & Mai-Dalton, R. R. (1998). On the leadership function of self-sacrifice. *The Leadership Quarterly*, *9*, 475–501.

Choi, Y., & Mai-Dalton, R. R. (1999). The model of followers' responses to self-sacrificial leadership: An empirical test. *The Leadership Quarterly*, *10*, 397–421.

Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review*, *12*, 637–647.

Dasborogh, M. T., & Ashkanasy, N. M. (2002). Emotion and attribution of intentionality in leader–member relationships. *The Leadership Quarterly*, *13*, 615–634.

De Cremer, D. (2002). Charismatic leadership and cooperation in social dilemmas: A matter of transforming motives? *Journal of Applied Social Psychology*, *32*, 997–1016.

De Cremer, D. (2004). The influence of accuracy as a function of leader's bias: The role of trustworthiness in the psychology of procedural justice. *Personality & Social Psychology Bulletin*, *30*, 293–304.

De Cremer, D., & Alberts, H. (2004). When procedural fairness does not influence how good I feel: The effects of voice and leader selection as a function of belongingness needs. *European Journal of Social Psychology*, *34*, 333–344.

De Cremer, D., & Tyler, T. R. (2005). Managing group behavior: The interplay between procedural fairness, sense of self, and cooperative behavior. In M. Zanna (Ed.) *Advances in experimental social psychology*, *vol. 37* (pp. 151–218). New York: Academic Press.

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.

Dipboye, R. L. (1990). Laboratory vs. field research in industrial and organizational psychology. *International Review of Industrial and Organizational Psychology*, *5*, 1–34.

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, *87*, 611–628.

Dvir, T., Kass, N., & Shamir, B. (2004). The emotional bond: Vision and organizational commitment among high-tech employees. *Journal of Organisational Change Management*, *17*, 126–143.

Foels, R., Driskell, J. E., Mullen, B., & Salas, E. (2000). The effects of democratic leadership in group member satisfaction: An integration. *Small Group Research*, *31*, 676–701.

Ford, J. K., MacMallum, R. C., & Tait, M. (1986). The application of exploratory factor analysis in applied psychology: A critical review and analysis. *Personnel Psychology*, *39*, 291–314.

Greenleaf, R. K., & Spears, L. C. (2002). *Servant leadership: A journey into the nature of legitimate power and greatness* (25th anniversary ed.). Mahwah, NJ: Paulist Press.

Hackman, J. R. (1990). *Groups that work (and those that don't)*. San Francisco: Jossey-Bass.

House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt, & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189–207). Carbondale, IL: Southern Illinois University Press.

House, R. J., & Shamir, B. (1993). Toward the integration of transformational, charismatic, and visionary theories. In M. M. Chemers, & R. Ayman (Eds.), *Leadership theory and research: Perspectives and directions* (pp. 81–107). San Diego, CA: Academic Press.

Humphrey, R. H. (2002). The many faces of emotional leadership. *The Leadership Quarterly*, *13*, 493–504.

Hunt, J. G. (1999). Transformational/charismatic leadership's transformation of the field: An historical essay. *The Leadership Quarterly*, *10*, 129–144.

Judge, T. A., Picolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*, *89*, 36–51.

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.

Kirkpatrick, S. A., & Locke, E. A. (1996). Direct and indirect effects of three core charismatic leadership components on performance and attitudes. *Journal of Applied Psychology*, *81*, 36–51.

Lewin, K., Lippit, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created social climates. *Journal of Social Psychology*, *10*, 171–199.

Mikula, G., Scherer, K. R., & Athenstaedt, U. (1998). The role of injustice in the elicitation of differential emotional reactions. *Personality & Social Psychology Bulletin*, *24*, 769–783.

Palmer, B., Walls, M., Burgess, Z., & Stough, C. (2001). Emotional intelligence and effective leadership. *Leadership & Organization Development Journal*, *22*, 5–10.

Parkinson, R. (1996). Emotions are social. *British Journal of Psychology*, *87*, 663–683.

Peterson, R. S. (1997). A directive leadership style in group decision-making can be both virtue and vice: Evidence from elite and experimental groups. *Journal of Personality and Social Psychology*, *72*, 1107–1121.

Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, *26*, 513–563.

Richer, S. F., & Vallerand, R. J. (1995). Supervisors' interactional styles and subordinates' intrinsic and extrinsic motivation. *Journal of Social Psychology*, *135*, 707–722.

Russell, R. F., & Stone, G. A. (2002). A review of servant leadership attributes: Developing a practical model. *Leadership & Organization Development Journal*, *23*, 145–157.

Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In M. P. Zanna (Ed.) *Advances in Experimental Social Psychology*, *vol. 29* (pp. 209–269). New York, NY: Academic Press.

Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based concept. *Organizational Science*, *4*, 577–594.

Shea, C. M., & Howell, J. M. (1999). Charismatic leadership and task feedback: A laboratory study of their effects on self-efficacy and task performance. *The Leadership Quarterly*, *10*, 375–396.

Shiota, M. N., Campos, B., Keltner, D., & Hertenstein, M. J. (2004). Positive emotion and the regulation of interpersonal relationships. In P. Philippot, & R. S. Feldman (Eds.), *The regulation of emotions* (pp. 127–155). Mahwah, NJ: Lawrence Erlbaum Associates.

Smith, K. G., Carroll, S. J., & Ashford, S. J. (1995). Intra- and interorganizational cooperation: Toward a research agenda. *Academy of Management Journal*, *38*, 7–23.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). Washington DC: American Sociological Association.

Tesser, A., Wood, J. V., & Stapel, D. A. (2002). Introduction: An emphasis on motivation. In A. Tesser, D. A. Stapel, & J. V. Wood (Eds.), *Self and motivation: Emerging psychological perspectives* (pp. 3–11). Washington, DC: APA.

Van Vugt, M., Jepson, S. F., Hart, C. M., & De Cremer, D. (2004). Autocratic leadership in social dilemmas: A threat to group stability. *Journal of Experimental Social Psychology*, *40*, 1–13.

Vroom, V. H. (1964). *Work and motivation*. New York: Wiley and Sons.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision-making*. Pittsburgh: University of Pittsburgh Press.

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.

Wofford, J. C. (1999). Laboratory research on charismatic leadership: Fruitful or futile? *The Leadership Quarterly*, *10*, 523–529.

Yammarino, F. J., & Dubinsky, A. J. (1994). Transformational leadership theory: Using levels of analysis to determine boundary conditions. *Personnel Psychology*, *47*, 787–811.

Yammarino, F. J., Spangler, W. D., & Bass, B. M. (1993). Transformational leadership and performance: A longitudinal investigation. *The Leadership Quarterly*, *4*, 81–102.

Yorges, S. L., Weiss, H. M., & Strickland, O. J. (1999). The effect of leader outcomes on influence, attributions, and perceptions of charisma. *Journal of Applied Psychology*, *84*, 428–436.

Yukl, G. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *The Leadership Quarterly*, *10*, 285–305.

Zajonc, R. B. (1998). Emotions. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 591–632). New York: McGraw-Hill Companies.

Zeelenberg, M. (2002). *Emoies en gedrag [Emotions and behavior]. Inaugurale rede*. the Netherlands: University of Tilburg.

Zeelenberg, M., & Pieters, R. (in press). Feeling is for doing: A pragmatic approach to the study of emotions in economic behavior. In D. De Cremer, M. Zeelenberg, & J. K. Murnighan (Eds.), *Social psychology and economics*. Lawrence Erlbaum Associates.