



When do leaders sacrifice? The effects of sense of power and belongingness on leader self-sacrifice

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ABSTRACT

Past research on leader self-sacrifice has focused entirely on the effects of this leader behavior on followers and its implications for organizations. The present research focused on antecedents of leader self-sacrifice. We argued that self-sacrifice is positively influenced by leaders' sense of belongingness to the group they supervise. Furthermore, leaders' subjectively sensed power can serve as a moderator of this effect. We expected this because a high sense of power is known to facilitate goal pursuit. Given that organizational goals often prescribe serving the interests of the organization, leaders' sense of belongingness should promote self-sacrifice particularly among leaders low in subjective power; leaders high in subjective power should display self-sacrifice regardless of their sense of belongingness. Two field studies supported these predictions. A final experiment supported a critical assumption underlying our argument in showing that the sense of power \times sense of belongingness interaction is restricted to situations that prescribe cooperative goals. When situations prescribe competitive goals, this interaction was absent.

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Research on leadership has taught us that leaders who act as role models and contribute to the welfare of their group or collective motivate and inspire their subordinates to do so as well (Conger & Kanungo, 1998; Hogan & Kaiser, 2005; Lockwood, Jordan, & Kunda, 2002). One effective way in which leaders motivate and inspire their followers is by going beyond their self-interest and taking on personal costs to benefit their group or organization (Conger & Kanungo, 1987; Shamir, House, & Arthur, 1993). Indeed, leaders engaging in self-sacrificial behavior are considered more charismatic, effective, and legitimate by their followers than self-benefiting leaders (Choi & Mai-Dalton, 1999; De Cremer & Van Knippenberg, 2004; Van Knippenberg & Van Knippenberg, 2005; Yorges, Weiss, & Strickland, 1999). Consequently, self-sacrificial leaders elicit more positive affect, trust, cooperation, and improved performance among their followers (De Cremer, 2006; Van Knippenberg & Van Knippenberg, 2005). However, despite the fact that self-sacrifice is clearly an important type of leader behavior, past research has failed to account for the antecedents of leader self-sacrifice. This begs the question what makes leaders actually engage in this influential type of behavior?

Leader self-sacrifice is defined as the abandonment or postponement of personal interests, privileges, or welfare in the division of labor, distribution of rewards, and exercise of power (Choi & Mai-Dalton, 1999). Such sacrifice can be partial or total and also temporary or permanent (Choi & Mai-Dalton, 1998). In the present research, we argue that leaders' sense of belongingness (defined as the extent to which leaders feel socially included in the group, e.g., Van Prooijen, Van den Bos, & Wilke, 2004, p. 67) and leaders' sense of power (i.e., defined as leaders' perception of their capacity to influence others, Anderson, John & Keltner, 2012) are important antecedents of leaders' self-sacrifice. We focus on these two antecedents because they interactively define

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much of the relationship that leaders experience with the groups they lead (cf. Van Vugt, Hogan, & Kaiser, 2008). That is, leaders are at the same time (a) group members who are susceptible to the same concerns as other group members, perhaps most importantly the concern of feeling included (Van Dijke & De Cremer, 2010; Van Knippenberg & Hogg, 2003), and (b) unique group members, as they are able to exert disproportionate influence and power over other members of the social collective (Keltner, Gruenfeld, & Anderson, 2003; Turner, 2005).

Following recent insights from the belongingness and power literatures, we argue that leaders who experience a high sense of belongingness feel a better alignment with the interests of their group or team and will be more motivated to take on personal costs to benefit their group (i.e., self-sacrifice) than leaders with a low sense of belongingness. Furthermore, we advance the hypothesis that leaders' sense of power will moderate this effect, such that particularly among leaders with a low sense of power, the positive effect of belongingness on leader self-sacrifice emerges. We propose that leaders with a high sense of power might be less affected by their sense of belongingness. Rather, they will display self-sacrifice regardless of their sense of belongingness, because a high sense of power facilitates acting in line with salient goals; goals that in organizational contexts will often prescribe cooperative behaviors. Finally, we develop an argument and explicitly test the assumption that the interactive effect of sense of belongingness and sense of power is limited to cooperative goal conditions.

1. Leader self-sacrifice and sense of belongingness

Arguably the most important human concern within groups and organizations is experiencing a sense of belongingness (Baumeister & Leary, 1995; De Cremer & Blader, 2006; Hornsey & Jetten, 2004; Thau, Aquino, & Poortvliet, 2007). Indeed, people are attuned to how others socially evaluate them and when people feel that they belong to a group they are likely to display positive behavior towards this group (De Cremer, 2002; Leary & Baumeister, 2000; Patrick, Knee, Canevello, & Lonsbary, 2007). This positive behavior appears to be driven by social exchange processes: people who feel included believe that positive behavior will be returned in the long term, whereas people who feel excluded are afraid they will be taken advantage of (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). Consequently, it stands to reason that leaders' willingness to engage in self-sacrifice, which is a unique behavior to promote group welfare as it entails personal costs or risks, will be influenced by the extent to which they feel that they belong. More specifically, when a leader experiences a sense of belonging towards his/her group, this leader should feel a better alignment with the interests of his/her group and be more motivated to take on personal costs or risks to promote the interests of the group and its members.

Several studies provide evidence for a strong correlation between feeling socially included and acting in a prosocial manner (e.g., Parkhurst & Asher, 1992; Schonert-Reichl, 1999). Twenge et al. (2007) for instance showed in a series of experimental studies that people who feel excluded consequentially act less prosocially, by being less cooperative in a mixed-motive game or donating less to a worthy cause. However, the behaviors measured in these studies were usually not directed at the target(s) of social inclusion or exclusion (i.e., fellow group members). These studies thus only provide *indirect* support for the idea that social inclusion elicits self-sacrificing behavior towards the source of the inclusion. In fact, we know of only one study that focused on behavior that is directed at the target of social inclusion, by showing that people who feel included in their group contribute more to a public good than people who feel excluded (De Cremer, 2002). Furthermore, prior work usually has not focused on prosocial acts that can be regarded as self-sacrificial behavior (i.e., behavior that is costly and/or risky). Despite these limitations, these studies do suggest that social inclusion affects people's willingness to engage in behaviors that benefit the greater good.

Although prior research did not apply these insights on the effects of social inclusion on self-sacrificial behavior in organizations (i.e., leader behaviors that are risky and costly), it follows that social information communicating a sense of belongingness should also affect group members, including those in leadership positions (Bradford, 1976). Therefore, we expect that leader self-sacrifice is more likely to emerge if leaders feel socially included in the group they lead than when they feel excluded.

However, leader self-sacrifice may not always be facilitated by feeling included in the group. That is, some leaders might already be motivated to engage in self-sacrificial behavior regardless of their sense of belongingness because they feel that doing so is part of the goals they have as a leader. In the following section, we will argue that the effect of leaders' sense of belongingness on the display of self-sacrificial behavior is less likely to be found among leaders with a high sense of power. Instead, we argue that a high sense of power might make leaders display self-sacrifice, regardless of their level of belongingness.

2. The moderating role of sense of power

Following standard definitions of power (e.g., Emerson, 1962; French & Raven, 1959; Keltner et al., 2003), we define an actor's power over a target as this actor's ability to influence the target's behavior in a preferred direction, even if the target wishes to resist such influence attempts. Although leaders generally have more power than employees at lower levels (Kipnis, 1976), leaders vary in how powerful they perceive themselves to be (cf. Anderson & Berdahl, 2002; Magee, Gruenfeld, Keltner, & Galinsky, 2005). In other words, some leaders will have a higher subjective sense of power than others. Importantly, sense of power has been found to better explain and predict actual behavior than objective power indices (Anderson & Berdahl, 2002; Anderson & Galinsky, 2006; Haidt & Rodin, 1999).

An extensive literature shows that power affects behavior, perception, attention and other domains of human life (e.g., see Guinote, 2007a; Keltner et al., 2003 for overviews). Traditionally, research has often focused on the potential corrupting influence of power. Examples include, but are not limited to inflated self-perception (Georgeson & Harris, 1998), increased stereotyping

(Fiske, 1993) and proneness to sexual harassment (Bargh, Raymond, Pryor, & Strack, 1995). Yet, other work has suggested that power can also promote prosocial behavior (Chen, Lee-Chai, & Bargh, 2001; Galinsky, Gruenfeld, & Magee, 2003), individuating (Overbeck & Park, 2001), and ethical conduct (DeCelles, DeRue, & Margolis, 2012). Power thus seems to produce contradictory results. How can this be explained?

Recent work shows that power in itself should not be considered as a variable that makes people behave in selfish or cooperative ways. Rather, feeling powerful improves people's capacity to respond to and pursue salient goals (e.g., Galinsky et al., 2003; Guinote, 2008; Overbeck & Park, 2006). In direct support of this, numerous studies in recent years have robustly shown that powerful individuals are more goal-oriented and engage in more effective goal-directed behavior (Chen et al., 2001; Guinote, 2007a, 2007b, 2007c; Overbeck & Park, 2006; Smith, Jostmann, Galinsky, & Van Dijk, 2008; Smith & Trope, 2006).

In contrast, those individuals low in sense of power are found to be more sensitive to evaluations and external constraints (Fiske, 1993; Steele & Aronson, 1995), more affected by social pressures (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008) and information that is less relevant to achieving the organization's goals (Guinote, 2007c; Overbeck & Park, 2006). Belongingness information can form such an external constraint, because it has the implication of being included or excluded in the group (see Baumeister & Leary, 1995, for an overview). Therefore, leaders with a low sense of power should be particularly affected by information about their belongingness in the group. In other words, we expect leaders with a low sense of power to focus on belongingness information to determine whether they will engage in risky and/or costly behaviors for the benefit of the group.

At the same time, leaders with a high sense of power can be expected to disregard information that is less directly related to organizational goals (Guinote, 2007c; Overbeck & Park, 2006). In fact, high power facilitates maintaining goal-related information in working memory despite distractions (Smith, Dijksterhuis, & Wigboldus, 2008; Smith, Jostmann, et al., 2008). Thus, those with a high sense of power can be seen as focusing more on the bigger picture (Smith & Trope, 2006) and dealing more with the role requirements of their position (Overbeck & Park, 2006). This implies that leaders' sense of belongingness will matter less to those leaders who feel powerful when the opportunity arises to engage in self-sacrificial behavior.

In addition to the moderating role of power, the image of powerful individuals as effective goal pursuers also has implications for whether sense of power itself promotes self-sacrifice. Of course, leaders high in sense of power might sometimes pursue self-interested or antisocial goals rather than prosocial or collective goals. Indeed, when no situational goals are present, personal or self-interested goals can be pursued by individuals who feel powerful (Galinsky et al., 2008; Guinote, Weick, & Cai, 2012). When situational goals are present, it depends on the nature of the goals whether people high in sense of power act in a more selfish or prosocial manner than people low in sense of power (Galinsky et al., 2003; Maner & Mead, 2010). For instance, in a competitive environment (i.e., an environment in which individual goals and interests compete with collective goals and interests, Beersma et al., 2003; Deutsch, 1949), leaders might place their own goals above those of the organization (Beersma et al., 2003; Tjosvold, 1984).

In many organizations, however, the goal will be to cooperate, to serve the interests of the organization, and to direct followers towards these organizational interests (e.g., Hollander, 1980; Maner & Mead, 2010; Tjosvold, 1984; Van Vugt et al., 2008; Yukl & Van Fleet, 1992). Indeed, leadership is often defined in terms of influencing followers to contribute to the collective, and coordinating collective interests (e.g., Hollander & Offermann, 1990; Van Vugt et al., 2008), which affects the manner in which organizations select and train their leaders (e.g., Avolio, Sosik, Jung, & Berson, 2003; Fiedler, 1996; Saari, Johnson, McLaughlin, & Zimmerle, 1988). Thus, leaders with a high sense of power will often be motivated to act in ways that serve the interests and contribute to the group or organization (Lee & Tiedens, 2001; Overbeck & Park, 2001, 2006), because in most instances doing so is an indispensable part (i.e., goal) of their role as a leader (Hogan & Kaiser, 2005). Given that the concept of self-sacrifice entails a willingness to incur personal costs (or run the risk of such costs) and give up privileges to serve organizational goals (Conger & Kanungo, 1987; De Cremer & Van Knippenberg, 2004; Shamir et al., 1993), we propose that feeling powerful (i.e., having a high sense of power) will often facilitate leader self-sacrifice.

Taken together, our review of the literature suggests that sense of power can act as a moderator of the relationship between sense of belongingness and the willingness to engage in self-sacrifice. Indeed, leaders with a low sense of power likely base their willingness to make personal sacrifices for their group on the extent to which they experience a sense of belonging to this group. In contrast, leaders who have a high sense of power might not need to experience a sense of belongingness to engage in self-sacrificial behavior. That is, those leaders with a high sense of power will likely engage in behaviors that serve the organization's interest such as self-sacrificial behavior because it is part of their goals as a leader to do so. Building on these insights, we formulate the hypothesis that sense of belongingness and sense of power will interact in predicting leader self-sacrifice. When leaders are low in sense of power, there will be a positive relationship between sense of belongingness and leader self-sacrifice, whereas this relationship will be attenuated when leaders are high in sense of power.

3. The present research

We examined our hypotheses in three studies. The purpose of Studies 1 and 2 was to test in actual organizational settings whether a leader's sense of belongingness and sense of power interact in influencing his/her level of self-sacrifice. We relied on leaders as the source for all measures in Study 1. In Study 2, we used a multisource approach such that leaders assessed our independent variables (i.e., sense of power and sense of belongingness) and subordinates assessed leader self-sacrifice.

Finally, the purpose of Study 3 was twofold. First of all, we wanted to test our predictions in a controlled lab environment, providing us with findings high in internal validity (De Cremer & Van Knippenberg, 2002, 2004). Second, we wanted to provide

explicit evidence that the moderating role of sense of power in the relationship between sense of belongingness and self-sacrifice can be explained by a more effective goal pursuit of leaders with a high sense of power. We did this by conducting a laboratory experiment in which we manipulated the type of situational goals that were made salient (i.e., cooperative versus competitive) in addition to manipulating leaders' sense of belongingness and sense of power.

4. Study 1

4.1. Method

4.1.1. Sample and procedure

Participants were 411 organizational supervisors (51.1% male, 48.9% female, $M_{age} = 42.65$ $SD = 10.93$) from a variety of Dutch organizations. For their participation, they received credit points they could trade in for certain gifts (i.e., a ticket for the movies). The respondents worked an average of 34.82 h each week ($SD = 9.00$), had been in a supervisory position for an average of 6.91 years ($SD = 6.85$) and supervised an average of 3.32 ($SD = 2.16$) employees. Finally, 21.1% worked for the government, 74.9% worked for non-governmental organizations, and 4% worked as temporary employees.

4.1.2. Measures

All responses were given on a five-point scale (1 = *strongly disagree*, 5 = *strongly agree*).

We measured leaders' *sense of belongingness* using a five-item scale ($\alpha = .88$) Baumeister and Leary (1995), De Cremer (2002), and Leary (2001). These items asked to what extent participants felt "accepted", "respected", and "liked" by the group and "connected to" and "part of" the group. We assessed leaders' *sense of power* with the situational version of the validated eight-item sense of power scale ($\alpha = .88$) of Anderson, John and Keltner (2012) (see also Anderson & Galinsky, 2006).

Finally, we measured leaders' *self-sacrifice* with three items ($\alpha = .76$) inspired by Conger and Kanungo (1998), Choi and Mai-Dalton (1998, 1999), and partly taken from Van Knippenberg and Van Knippenberg (2005, Study 3). Items included "I am willing to make personal sacrifices for the benefit of the team," "I am prepared to defend the interests of my team members, even if this does not serve my own interests," and "In hard times, team members can count on me, even if this does not serve my own interests."

4.2. Results

We calculated the main and interaction effects of leaders' sense of power and sense of belongingness on leaders' willingness to engage in self-sacrificial behavior to use in hierarchical regression procedures. Following Aiken and West (1991), we centered leaders' sense of belongingness and leaders' sense of power prior to the analyses and we based the interaction term on these centered scores. We also ran our analyses with participant sex as a factor. However, no effects of this factor were found in Study 1, nor in the remaining studies. The means, standard deviations, and intercorrelations between the study variables are displayed in Table 1. The regression results are reported in Table 2.

Leaders' sense of power and sense of belongingness were positively related to self-sacrifice, $\beta = .25$, $p < .001$, $f^2 = .15$ and $\beta = .37$, $p < .001$, $f^2 = .29$ respectively. Furthermore, we found a significant interaction effect between leaders' sense of power and sense of belongingness, $\beta = -.09$, $p < .05$, $f^2 = .03$, see Fig. 1. A simple slopes analysis (Aiken & West, 1991) revealed that, as expected, leaders' sense of belongingness was significantly more positively related to leaders' self-sacrifice when the leaders' sense of power was low (1 SD below the mean; $\beta = .45$, $p < .001$) than when leaders' sense of power was high (1 SD above the mean; $\beta = .29$, $p < .001$).

4.3. Discussion

Study 1 provided evidence that the self-sacrificial behavior of leaders from actual organizations was positively affected by their sense of belongingness. Furthermore, as predicted, sense of power moderated this relation such that particularly leaders with a low sense of power were affected by their sense of belongingness.

A possible limitation of Study 1 is that our measurement of leaders' self-sacrifice was based upon self-report ratings, leaving room for socially desirable or self-serving answers (e.g., Donaldson & Grant-Vallone, 2002; Moorman & Podsakoff, 1992; although same-source bias concerns are not problematic when examining interactions, see Evans, 1985). Therefore, we conducted a second

Table 1

Means, standard deviations and intercorrelations of leaders' self-sacrifice, leaders' sense of power and leaders' sense of belongingness (Study 1).

	<i>M</i>	<i>SD</i>	1	2	3
Leaders' self-sacrifice	3.66	.64	–		
Leaders' sense of power	3.27	.66	.38***	–	
Leaders' sense of belongingness	4.02	.53	.48***	.34***	–

$N = 411$.

*** $p < .001$.

Table 2

Results of hierarchical regression analysis of leaders' self-sacrifice on leaders' sense of power and leaders' sense of belongingness (Study 1).

	β	R^2	Adj R^2	R^2 change	df
Step 1		.28	.28	.28	2, 408
Leaders' sense of power	.25***				
Leaders' sense of belongingness	.39***				
Step 2		.29	.28	.01	1, 407
Leaders' sense of power	.25***				
Leaders' sense of belongingness	.37***				
Leaders' sense of power \times leaders' sense of belongingness	-.09*				

* $p < .05$.*** $p < .001$.

study, of which the purpose was two-fold. First, we wanted to replicate the findings of Study 1 using a different measure of leader self-sacrifice, as the use of constructive replication has been argued to strengthen the validity of findings (Lykken, 1968). Second, we wanted to provide a more objective and behavioral measure of self-sacrifice, one that is not based upon leaders' self-report ratings. Therefore, Study 2 had a multi-source design, in which sense of power and sense of belongingness were based upon self-report ratings of leaders. This time, however, followers rated leaders' self-sacrificial behavior.

5. Study 2

5.1. Method

5.1.1. Sample and procedure

We invited 402 undergraduate business students from a university in the southeastern United States to take part in the study and 177 participated (for a response rate of 44%). To avoid same source bias concerns, we used a snowballing method whereby undergraduate students working at least 20 h a week served as the subordinate, or could choose another working adult (i.e., friend, relative, colleague) to serve as the subordinate. The subordinate asked his/her supervisor to also participate in the study (e.g., see also De Cremer, Mayer, Van Dijke, Schouten, & Bardes, 2009; Lee & Allen, 2002; Skarlicki & Folger, 1997). We administered the subordinate and supervisor surveys online and gave each respondent a unique identification number to ensure anonymity and to make sure we could match the subordinate and supervisor data. We took a number of steps to ensure that the surveys were completed by the correct sources. First, in introducing the study, we emphasized the importance of integrity in the scientific process. We told the students that it was essential for the focal and coworker respondents to fill out the correct surveys. Second, when participants submitted their on-line surveys, time stamps and IP addresses were recorded to ensure that the employee and supervisor surveys were submitted at different times and with different IP addresses. We found no irregularities in the responses.

A total of 334 individuals (177 subordinates and 157 supervisors) participated in the study. We could only include data of respondents who had matching supervisor data, which resulted in 148 matched leader–follower dyads (i.e., subordinate–supervisor dyads). The subordinates (48.3% female) were an average of 24.8 years old. As for their ethnic background, 5.4% were African American, 3.4% Asian American, 67.6% Caucasian, 13.5% Hispanic, 2.7% Latino, 0.7% Native American, 2% Biracial, and 4.7% of the respondents listed “other”. They worked an average of 3.5 years in the organization and 43.9% worked full-time.

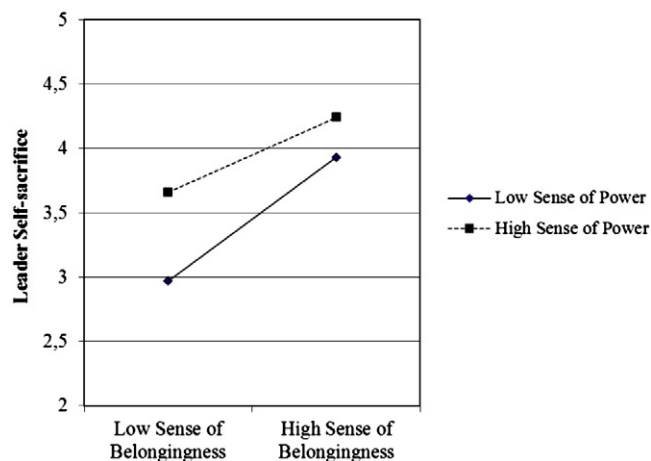


Fig. 1. Interaction between leaders' sense of power and leaders' sense of belongingness on leader self-sacrifice (Study 1).

The average age of the supervisors (41.5% female) was 38.9 years old and 7.6% were African American, 0.7% Asian American, 75.9% Caucasian, 6.9% Hispanic, 4.8% Latino, 0.7% Native American, 1.4% Biracial, and 2% of the participants listed “other.” The supervisors worked an average of 8.5 years in the organization and 97.9% worked full-time.

The supervisor filled out measures of his/her sense of power and sense of belongingness. The subordinate reported on leader self-sacrifice.

5.1.2. Measures

All responses were given on a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Leaders' sense of power was assessed with the same scale we used in [Study 1](#) ($\alpha = .83$).

Leaders' sense of belongingness was assessed with a four-item scale ($\alpha = .61$) inspired by [Baumeister and Leary \(1995\)](#): “I feel connected to my employees”, “I do not feel part of my team” (reversed), “I feel that I fit well into my team”, and “I feel like I belong to my team.”

Leaders' self-sacrifice was assessed with two items ($r = .52, p < .01$) based on [Conger and Kanungo \(1998\)](#) and [Choi and Mai-Dalton \(1998, 1999\)](#): “My supervisor is not willing to give up privileges if the team needs this” and “My supervisor is not willing to take on extra work to help a team member, if this means that he/she has to stay longer than usual.” We reverse coded both items for interpretation and to facilitate comparison between the studies.

5.2. Results

The means, standard deviations, and intercorrelations between the study variables are displayed in [Table 3](#). We tested the hypotheses using the same hierarchical regression procedures as in [Study 1](#). The regression results are shown in [Table 4](#).

The analyses showed that both sense of power ($\beta = .20, p < .05, f^2 = .12$) and sense of belongingness ($\beta = .23, p < .05, f^2 = .14$) were positively related to leader self-sacrifice. Furthermore, we found a significant interaction between sense of power and sense of belongingness, $\beta = -.16, p < .05, f^2 = .03$, see [Fig. 2](#). Simple slopes analyses revealed that, as expected, when leaders' sense of power was low (1 *SD* below the mean), leaders' sense of belongingness was positively related to leaders' self-sacrifice, $\beta = .39, p < .01$. On the other hand, when leaders' sense of power was high (1 *SD* above the mean), the relationship between sense of belongingness and self-sacrifice was non-significant, $\beta = .06, p = .65$.

5.3. Discussion

Study 2 revealed that the predicted interaction effect is also found when followers (i.e., subordinates) rate their leaders' self-sacrificial behavior: followers found their supervisors to be more self-sacrificial when these leaders felt socially included, but only when the leaders felt low in sense of power. The self-sacrificial behavior of leaders with a high sense of power was not predicted by their sense of belongingness.

Taken together, [Studies 1 and 2](#) provide evidence for the moderating role of sense of power in the relationship between leaders' sense of belongingness and their self-sacrificial behavior. Our theoretical rationale for this moderating effect is that sense of power leads to a more effective goal pursuit of leaders. Specifically, whereas the self-sacrifice of leaders low in sense of power is affected by their sense of belongingness, leaders that are high in sense of power will focus on the goals that are active in the situation, and will disregard information that is less central to goal attainment such as their sense of belongingness. Hence, when contributing to the collective (i.e., a cooperative goal) is the active goal, leaders high in sense of power will display self-sacrifice regardless of their sense of belongingness. In [Studies 1 and 2](#) we implicitly assumed—in line with a number of authors—that in general the goal of leaders is to contribute to and serve the organizational or group's interest (e.g., [Fiedler, 1996](#); [Hollander, 1980](#); [Van Vugt et al., 2008](#); [Yukl & Van Fleet, 1992](#)).

To explicitly test this critical assumption that underlies our argument, we designed a third study. In this laboratory experiment, we explicitly manipulated leader goals in addition to manipulating leaders' sense of belongingness and sense of power. We based our manipulation on [Overbeck and Park \(2006\)](#) who demonstrated that power leads to a stronger focus on the goals that are defined by the situation. In their study, half of the leaders had the goal of ensuring that their team members work productively and efficiently. The other half of the leaders had the goal of creating a positive and cooperative work atmosphere for their team in which team members feel committed to the organization.

Table 3

Means, standard deviations and intercorrelations of leaders' self-sacrifice, leaders' sense of power and leaders' sense of belongingness (Study 2).

	<i>M</i>	<i>SD</i>	1	2	3
Leaders' self-sacrifice	4.82	1.53			
Leaders' sense of power	5.17	1.12	.33***		
Leaders' sense of belongingness	5.70	.99	.35***	.57***	

Note. Higher scores indicate higher leader self-sacrifice, etc.

N = 148.

*** $p < .001$.

Table 4

Results of hierarchical regression analysis of leaders' self-sacrifice on leaders' sense of power and leaders' sense of belongingness (Study 2).

	β	R^2	Adj R^2	R^2 change	df
Step 1		.15	.14	.15	2, 142
Leaders' sense of power	.20*				
Leaders' sense of belongingness	.23*				
Step 2		.17	.15	.02	1, 141
Leaders' sense of power	.21*				
Leaders' sense of belongingness	.22*				
Leaders' sense of belongingness \times leaders' sense of belongingness	-.16*				

* $p < .05$.

To be able to test our hypothesis, we made an important adjustment to these manipulations by Overbeck and Park. In the competitive goal condition, leaders had to make sure that not only their team members would be productive, but that they would finish their own work in time as well. Here, investing time and effort and contributing to the team through self-sacrifice leaves leaders with less time to finish their individual tasks. This tension between an individual and a collective goal is in line with previous conceptualizations of competitiveness (Beersma et al., 2003; Deutsch, 1949). In contrast, in the cooperative goal condition, leaders had to create an environment in which group members would cooperate and work positively together. Arguably, going beyond self-interest (i.e., self-sacrifice) contributes to achieving this goal. Therefore, we expected to replicate the interaction effect we found in the previous studies, but only in the condition where the goal of the leader was to create a cooperative work atmosphere. In the competitive goal condition, we expected that leaders would be more likely to place an emphasis on their own goals as opposed to the organization's wellbeing (Beersma et al., 2003; Tjosvold, 1984). Consequently, we predicted that leaders who feel powerful, and thus are more effective goal pursuers might engage in less self-sacrifice (i.e., more self-interested behavior) in this specific condition.

6. Study 3

6.1. Method

6.1.1. Participants and design

179 undergraduate business students at a Dutch university (67.7% male, $M_{age} = 20.81$ $SD = 1.87$) participated voluntarily in the study, in exchange for course credits. Participants were randomly assigned to a 2 (sense of power: low vs. high) \times 2 (sense of belongingness: low vs. high) \times 2 (goal: cooperative vs. competitive) between-subjects design.

6.1.2. Procedure

Participants sat in adjacent yet soundproof cubicles, in which they worked on the experiment using a computer. At the start of the experiment they filled out some questionnaires which would be used to appoint participants to a team role and to introduce our belongingness manipulation. The questionnaires consisted of a bogus leadership skill questionnaire as well as the ten-item (BFI-10) Big 5 personality questionnaire of Rammstedt and John (2007).

Subsequently, we introduced participants to a cover story based on Overbeck and Park (2006). We told participants that they would take part in a study on the effectiveness of a team of telecommuters in a publishing company and be placed in a four person

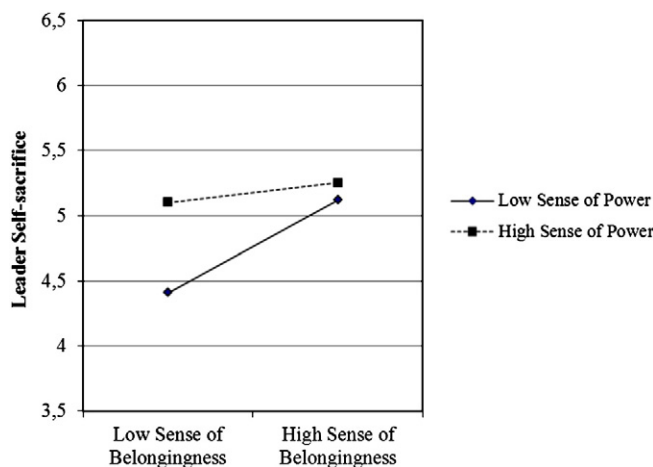


Fig. 2. Interaction between leaders' sense of power and leaders' sense of belongingness on leader self-sacrifice (Study 2).

group. They believed that one of the participants would be appointed as the team leader based on a questionnaire they had answered at the start of the experiment, which ostensibly measured leadership skills. In reality, every participant was assigned to the leader position and was led to believe that he or she would supervise a group of three proofreaders. These three followers allegedly would each proofread a chapter from a new management book they received from the experimenter. Participants (i.e., the leaders) were told that they would receive individual tasks rather than having to proofread. Additionally, their role would include responding to questions from group members, and evaluating the work of their group members. Participants believed that they would be able to interact with group members through an e-mail system.

Subsequently, the leader was introduced to our goal manipulation that was based on [Overbeck and Park \(2006\)](#). Participants in the *competitive* goal condition read:

Your main task is to ensure that all team members, including yourself perform at a certain level; it is crucial in a telecommuting setting that your team is productive and that deadlines are reached. In short, it is your primary job as team leader to ensure that each team member, including yourself works efficiently and productively and that your own tasks and the team's work will be finished.

In contrast, participants in the *cooperative* goal condition read:

Your main task is to ensure that all team members, including yourself work in an environment where they feel positive, involved and in which they identify with the organization; it is crucial in a telecommuting setting that employees work together in a positive work environment, as this will make them feel better. Thus, it is your primary job as a leader to ensure that your team members work in a pleasant environment in which they experience positive and cooperative relationships with each other and feel committed to the organization.

After reading this information, participants were introduced to our belongingness manipulation. We based this manipulation on the Inclusion of Others in the Self-scale (IOS; [Aron, Aron, & Smollan, 1992](#)), which has been used to measure sense of belonging in previous studies (e.g., [Thau et al., 2007](#)). Participants were told that, being the leader of their team it is important to have a representation of the composition of their team and the characters within their team. Therefore, they would be provided with an analysis of the questionnaires all participants had filled out at the start of the experiment (i.e., the bogus leadership questionnaire and the BFI-10). We presented the results of this analysis in a graph consisting of seven circle pairs which differed in overlap. We explained to participants that the left circle in each pair represented their own score and the right circle represented the average score of the group. At the left top corner, the circle pairs had no overlap at all. Moving from top left corner to the bottom right corner, the overlap of these circle pairs increased to a strong (though not yet complete) overlap. We told participants that the more overlap there was between the two circles, the higher the likelihood would be that the leader would fit in the group and experience a sense of belonging in their group.

After this explanation, we manipulated leaders' sense of belongingness by highlighting one of the seven circle pairs. In the *low sense of belongingness* condition, leaders found highlighted the circle pair at the top left corner with no overlap between the two circles. This suggested a strong likelihood that leaders would experience a low sense of belonging in their group. In contrast, leaders in the *high sense of belongingness* condition were presented with the circle pair in the bottom right corner highlighted. This picture had the strongest overlap between the two circles, thus indicating a strong likelihood that leaders would experience a high sense of belongingness in their group.

Subsequently, while the followers were allegedly working on their proofreading tasks, we introduced the leaders to our *sense of power manipulation* using a priming procedure introduced by [Galinsky et al. \(2003\)](#). Specifically, half of the leaders had to recall and write down a situation in which they had experienced power over another person or persons (inducing a high sense of power) while the other half had to write about a situation in which they had experienced the power of others over themselves (inducing a low sense of power). This power prime is the most commonly used manipulation of sense of power and has proven to be very effective (e.g., [Anderson & Galinsky, 2006](#); [Galinsky et al., 2003](#); [Guinote, 2007b, 2007c](#); [Smith, Dijksterhuis, et al., 2008](#); [Smith & Trope, 2006](#)).

After participants finished their individual writing task (i.e., our sense of power manipulation), we introduced them to our dependent measure of leader self-sacrifice. Finally, we thanked and debriefed participants.

6.1.3. Measures

Participants responded to all measures on a seven-point Likert-scale (1 = *strongly disagree*; 7 = *strongly agree*).

To check whether our *goal* manipulation was successful we asked participants two questions. They had to rate the extent to which they felt that their most important task as a leader was to create a positive and cooperative work environment for their team members (cooperative goal) and to what extent their most important task was to ensure that each team member, including themselves worked productively and effectively (competitive goal).

Our *sense of belongingness* manipulation check consisted of seven items ($\alpha = .95$) based on the work of [Baumeister and Leary \(1995\)](#), [De Cremer \(2002\)](#), and [Leary \(2001\)](#). Participants rated the extent to which they felt "accepted," "valued," and "liked" by their team. In addition they rated "the extent to which they felt part of their group," "the extent to which they believed to fit into the group," "the extent to which they experienced a sense of belonging to the group," and "the extent to which they felt excluded" [reverse coded].

Leader self-sacrifice was measured with five items ($\alpha = .78$) taken from and validated by De Cremer and Van Knippenberg (2004). The items were “I am willing to give up certain privileges for my group,” “I am willing to put my own interest at risk for the team,” “I am willing to meet up with my team members in my own time when they are experiencing personal issues,” “I am willing to take on personal risks for the team,” and “I am willing to invest my own time, even when this means that I have to stay longer to finish my own work.”

6.2. Results

6.2.1. Manipulation checks

A 2 (power) \times 2 (belongingness) \times 2 (goal) ANOVA revealed that participants in the cooperative goal condition felt more strongly that their most important task was to create a positive and cooperative work environment for their team than participants in the competitive goal condition ($M_s = 6.75$ vs. 3.67 , $SD_s = .54$ and 1.95 respectively) $F(1,171) = 185.55$, $p < .001$. Further, a 2 (power) \times 2 (belongingness) \times 2 (goal) ANOVA revealed that participants in the competitive goal condition felt more strongly that their most important task was to ensure that their team members worked productively and effectively than participants in the cooperative goal condition ($M_s = 6.60$ vs. 3.83 , $SD_s = .59$ and 1.88 respectively) $F(1,171) = 183.91$, $p < .001$. No other significant effects were found.

A 2 (power) \times 2 (belongingness) \times 2 (goal) ANOVA revealed that participants in the high sense of belongingness condition experienced a higher sense of belongingness ($M = 5.60$, $SD = .94$) to the group than participants in the low sense of belongingness condition ($M = 3.27$, $SD = 1.27$), $F(1,171) = 194.04$, $p < .001$. No other significant effects were found.

Two independent judges blind to the conditions rated the essays of the participants on power. The ratings of the judges were combined into a power scale ($\alpha = .88$) for further analyses. The participants in the high power condition were judged to have more power ($M = 5.14$, $SD = .72$) in their described situation than participants in the low power condition ($M = 2.67$, $SD = .84$), $F(1,170) = 425.72$, $p < .001$. No other main or interaction effects were found.

In sum, these results show that our goal, belongingness, and power manipulations were successfully and independently induced.

6.2.2. Self-sacrifice

The mean scores and standard deviations of leader self-sacrifice are reported in Table 5. A 2 (power) \times 2 (belongingness) \times 2 (goal) ANOVA on self-sacrifice revealed a significant three-way interaction, $F(1,171) = 3.35$, $p < .05$. To further examine this interaction, we performed simple effect tests. As expected, a two-way interaction between sense of power and sense of belongingness was found in the cooperative goal condition ($F(1,171) = 2.91$, $p < .05$, see Fig. 3a), but not in the competitive goal condition ($F(1,171) < 1$, $p = .20$, see Fig. 3b). Simple effects analysis revealed that in the cooperative goal condition, as expected, when leaders' sense of power was low, leaders' sense of belongingness positively affected self-sacrifice, $F(1,171) = 3.57$, $p < .05$. On the other hand, when leaders' sense of power was high, sense of belongingness did not significantly affect self-sacrifice, $F(1,171) < 1$, $p = .73$.

This pattern that was found in Studies 1 and 2, and also in the cooperative goal condition was, however, absent in the competitive goal condition. Sense of belongingness neither significantly affected self-sacrifice in the low power $F(1,171) < 1$, $p = .49$, nor in the high power condition $F(1,171) < 1$, $p = .53$. We did find a significant main effect of sense of power on leader self-sacrifice in the competitive goal condition ($F(1,171) = 6.43$, $p < .05$), showing that leaders with a high sense of power were less self-sacrificial than leaders with a low sense of power. This is in line with research that has shown that sense of power can sometimes make individuals more self-interested in competitive situations (Beersma et al., 2003; Tjosvold, 1984).

6.3. Summary

In Study 3, we again found that leaders' sense of belongingness and sense of power interactively facilitate self-sacrifice. Moreover, we showed that this was only the case in the cooperative goal condition and absent in the competitive goal condition. Taken together, in Study 3 we replicated the pattern of findings of Studies 1 and 2, as well as provide evidence for our theoretical rationale using a design that allows for causal inferences.

Table 5

Leaders' self-sacrifice by sense of power, goal and sense of belongingness condition (Study 3).

	Low sense of power		High sense of power	
	M	SD	M	SD
Low sense of belongingness				
Prosocial goal	4.81	.65	5.30	.72
Competitive goal	5.47	.73	4.89	1.02
High sense of belongingness				
Prosocial goal	5.33	.88	5.17	.98
Competitive goal	5.30	.74	5.00	.99

N = 179.

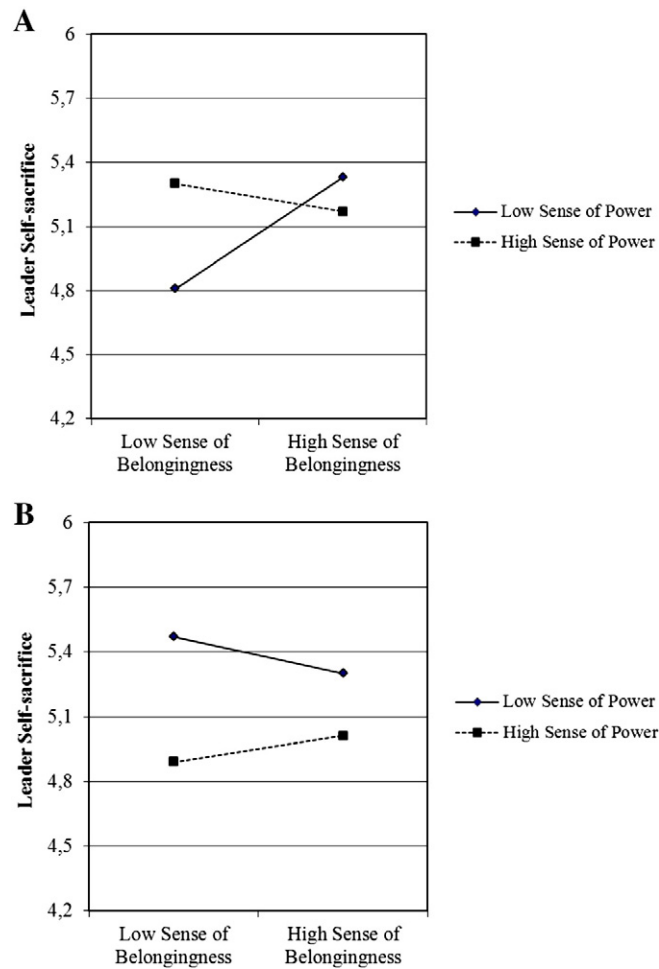


Fig. 3. a. Interaction between leaders' sense of power and leaders' sense of belongingness on leader self-sacrifice in the prosocial goal condition (Study 3) b. Interaction between leaders' sense of power and leaders' sense of belongingness on leader self-sacrifice in the competitive goal condition (Study 3).

7. General discussion

We predicted that self-sacrifice would emerge among leaders who experience a sense of belongingness to their followers as this should direct leaders' focus to their group's welfare. However, we expected this influence of sense of belongingness to be relatively limited for leaders with a high sense of power, because feeling powerful improves leaders' capacity to focus on and pursue collective goals, making it more likely that they will disregard belongingness information. Thus, whereas leaders low in sense of power should often be relatively sensitive to belongingness information when determining whether they will engage in costly and risky behaviors that serve their group, leaders high in sense of power do not need to experience a sense of belonging in order to display self-sacrifice. In a single and multisource field study, and a lab experiment), conducted in two different countries (the Netherlands and the U.S.), we found clear support for these predictions.

Finally, we also explicitly tested the critical assumption underlying our argument that a high sense of power should make leaders react less to belongingness information with self-sacrifice because sense of power improves the efficacy of goal pursuit. In most instances, organizational goals prescribe contributing to the welfare of the organization. We thus argued that the moderating role of sense of power should be confined to situations in which organizational goals prescribe contributing to the collective. In clear support of this argument, we replicated the results of Studies 1 and 2 in a laboratory experiment. However, these findings were confined to situations in which the organization was characterized by cooperative goals; the interaction effect was absent when the organization was characterized by competitive goals. In fact, in this latter situation, we found that a high sense of power made leaders less likely to display self-sacrifice, relative to a low sense of power.

7.1. Theoretical implications

Our findings have clear implications for the literature on leader self-sacrifice. This literature notes that engaging in self-sacrificial behavior can be an extraordinary way through which leaders positively influence perceptions and actions of their

subordinates and direct these subordinates towards the goals of the organization (Conger & Kanungo, 1987; Shamir et al., 1993). Rather than focusing on consequences of self-sacrificial leadership, which has been the primary focus of past research, the present research is—at least to our knowledge—the first to study antecedents of self-sacrificial leader behavior. Specifically, we focused on the interplay between an antecedent relating to what leaders have in common with other group members (i.e., leaders' sense of belongingness) and an antecedent that derives from the unique position that leaders have in the group (i.e., leaders' sense of power).

More generally, the present research responds to recent calls for more research on antecedents rather than consequences of leader behavior (e.g., Bommer, Rubin, & Baldwin, 2004; Scott, Colquitt, & Paddock, 2009). Indeed, we should not only look at which leader behaviors are effective, but also at situational and dispositional variables that affect when and/or why leaders display these effective behaviors. We also provide useful insights regarding the role that followers might play in leaders' decision-making processes (see Shamir, 2007 for an overview). Although there have been some studies that focused on how followers affect leader behavior (e.g., Farris & Lim, 1969; Greene, 1975; Lowin & Craig, 1968; Sims & Szilagyi, 1975), the majority has been *leader-centered* (e.g., Lord, Brown, & Freiberg, 1999; Northouse, 2004; Van Knippenberg & Hogg, 2003). Our present research adopts a more balanced perspective on leadership by showing that leaders' behavior is influenced by their social relations with their followers (see also Korsgaard, Roberson, & Rymph, 1998), but especially for leaders who do not feel powerful.

Our findings also contribute to the power literature. Past research often focused on the corrupting influence of power on perceptions, decisions, and behavior. Those studies show for example that power is often used by people for their self-interest (Kipnis, 1976) and that power makes people stereotype others more (Goodwin, Gubin, Fiske, & Yzerbyt, 2000). However, these findings have not gone unchallenged: Other research shows, for instance, that power makes people more interpersonally sensitive (Schmid Mast, Jonas, & Hall, 2009). Our findings provide clear support for the idea that power can make people act in more prosocial, rather than selfish ways. These findings are in line with literature suggesting that leaders often act in line with the interests of the organization (Hollander, 1980; Maner & Mead, 2010; Tjosvold, 1984; Van Vugt et al., 2008; Yukl & Van Fleet, 1992). These findings are also in line with recent findings showing that in organized settings, people often enter relationships with others, including powerful leaders with high levels of trust (Kramer, 2009; Weber, Malhotra, & Murnighan, 2005; see also McKnight, Cummings, & Chervany, 1998). In other words, our findings suggest that at least in organized settings, leaders often can be trusted not to abuse their power.

One way to reconcile the seemingly conflicting findings that power can lead to more selfish but also more prosocial behavior is by taking the perspective that power facilitates goal pursuit (e.g., Chen et al., 2001; Guinote, 2007a; Smith, Dijksterhuis, et al., 2008; Smith, Jostmann, et al., 2008; Smith & Trope, 2006). Some studies have applied the idea that power facilitates goal pursuit to predict that power should also facilitate the pursuit of dispositional goals and, hence, the expression of personality in prosocial versus more selfish behavior (Guinote et al., 2012; Van Dijk, De Cremer, & Handgraaf, 2004). There is, however, very little work showing that power facilitates attainment to situationally defined goals and thus makes people behave in more prosocial versus more selfish ways as a function of situational influences (for an exception, see Galinsky et al., 2003). The results of Study 3 thus contribute to the power literature in important ways because they show that power can lead to more prosocially (or proself) oriented behavior as a function of the goals that are active in the situation. We believe these findings contribute to a more balanced and complete picture of the role of power in the psychology of leadership.

7.2. Practical implications

What can organizations do to stimulate a leader's display of self-sacrificial behavior? First of all, when making selection decisions for leaders, it should be important to determine whether applicants will be able to garner resources to increase their sense of power as well as have the requisite interpersonal skills to feel a sense of belonging. Furthermore, in the case that leaders lack a high sense of power, management should encourage the leader to engage in behaviors to develop a closer relationship with employees. One way through which organizations can stimulate such positive relations between leaders (e.g., managers) and their employees is through team-building exercises. Organizations could also benefit from monitoring relations between followers and supervisors and addressing signals of negative relationships between these two parties.

Given that leaders who feel powerful are more effective goal pursuers (Overbeck & Park, 2006), organizations should also focus on creating and communicating leader goals that benefit the group and organization as a whole. That is, organizations should encourage leaders to focus not only on performance goals and their own performance, but also on the important task of creating a positive and cooperative work environment for their employees. This should make it more likely that leaders make decisions that benefit the group and organization rather than their self-interest. Overall, by selecting the right leaders, by stimulating positive relationships between their leaders and followers, and by making cooperative leader goals salient, organizations can create an environment in which leaders will exert their influence in positive ways that are in line with the goals of the organization.

7.3. Limitations and suggestions for future research

It is important to note that our research is not without its limitations. First of all, our measures of sense of belongingness and self-sacrifice are not completely the same across studies. Furthermore, in one instance our belongingness measure (Study 2) had a rather low alpha. Due to the lack of established measures of these two concepts, we relied on the literature in creating measures for these studies. However, we believe that the fact that we replicated our findings relying on different operationalizations of

leader self-sacrifice and sense of belongingness is not only a limitation, but also a testimony of the robustness of our findings (Lykken, 1968).

Second, given that we conducted Studies 1 and 2 among actual organizational leaders, we provide findings that are high in external validity. Whereas self-sacrifice was based on self-reports in Study 1, in Study 2 focal employees rated leader self-sacrifice, contributing to findings that are more objective and behavioral. However, these studies are inconclusive regarding causality. Furthermore, based on the leadership literature (e.g., Hollander, 1980; Van Vugt et al., 2008; Yukl & Van Fleet, 1992), we implicitly assumed that the leaders' goal was cooperative in these studies, rather than measuring this explicitly. To address these limitations, we manipulated leader goals in addition to sense of power and sense of belongingness in a laboratory experiment (Study 3). In this study, we used a validated measure of self-sacrifice, although it has to be noted that this study did not include a behavioral measure. Importantly, Study 3 provides evidence for our theoretical rationale. Overall, we believe that our set of studies robustly shows how and why sense of belongingness and power interactively affect leader self-sacrifice.

Given that no research has empirically examined sense of belongingness and sense of power as antecedents of the self-sacrificial behavior of leaders, we relied on literature on the effects of these constructs on the behavior of people in general rather than leaders specifically. This begs the question whether these processes are unique to leaders, or whether they would also affect the self-sacrificial behavior of regular group members in a similar manner. It is important to note that the principal aim of the present paper was to understand antecedents of leader self-sacrifice as a behavior that in itself is unique to leaders, and that has unique effects on followers (Choi & Mai-Dalton, 1999; De Cremer & Van Knippenberg, 2004; Van Knippenberg & Van Knippenberg, 2005; Yorges et al., 1999). Moreover, followers pay close attention to the actions of leaders, because followers depend on their leaders for resources and decision outcomes. Because of the unique position that leaders have in their group and their control over resources and decisions, (sense of) power should be a particularly relevant antecedent of leader behavior rather than that of regular group members. Still, it would be interesting to examine in future studies how sense of belongingness and sense of power affect the self-sacrificial behavior of regular group members.

Another intriguing and relevant variable to be examined in future research is the extent to which leaders identify with their leader role. It is possible that the more leaders identify with their leader role, the more they will identify with the goals associated with their role and the more they will act in line with role expectations. An intriguing possibility is that the extent to which leaders identify with their leader role is affected by their sense of power: if you feel strongly that you can influence others (i.e., have a high sense of power), you will probably feel more comfortable and identify more with roles in which you can use your power and influence others than when you do not feel very powerful. Such reasoning may in fact explain why those high in sense of power are better in dealing with role requirements, and focusing on goal relevant information (e.g., Overbeck & Park, 2006).

7.4. Concluding remarks

We believe the major strength of the present research lies in identifying how subjectively sensed power and sense of belongingness interactively stimulate leader self-sacrifice. By focusing on the antecedents of this important type of leader behavior, the present study can be seen as a first step in painting a more complete picture of self-sacrificial leadership. After all, previous research in the leadership literature has mainly focused on leader behaviors that are effective, while still not much is known about when and why leaders engage in such behaviors. It is a path that should provide fruitful avenues for future research on the “when” and “why” of leader behavior.

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