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The Essential Tension Between Leadership and Power: When Leaders Sacrifice Group Goals for the Sake of Self-Interest

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Throughout human history, leaders have been responsible for helping groups attain important goals. Ideally, leaders use their power to steer groups toward desired outcomes. However, leaders can also use their power in the service of self-interest rather than effective leadership. Five experiments identified factors within both the person and the social context that determine whether leaders wield their power to promote group goals versus self-interest. In most cases, leaders behaved in a manner consistent with group goals. However, when their power was tenuous due to instability within the hierarchy, leaders high (but not low) in dominance motivation prioritized their own power over group goals: They withheld valuable information from the group, excluded a highly skilled group member, and prevented a proficient group member from having any influence over a group task. These self-interested actions were eliminated when the group was competing against a rival outgroup. Findings provide important insight into factors that influence the way leaders navigate the essential tension between leadership and power.

Keywords: leadership, power, individual differences, dominance, motivation

All forms of leadership must make use of power. The central issue of power in leadership is not Will it be used? But rather Will it be used wisely and well? (Gini, 2004)

Group living is full of tradeoffs and conflicting social motivations. One particular kind of tradeoff that has profoundly important implications for group living involves the nature of group hierarchy. Throughout human history, groups have demonstrated a need for leaders. In times of war, famine, and other crises, leaders have helped guide groups toward desirable outcomes. Leaders can play a critical role in fostering group well-being and are ideally positioned to help groups manage their problems and achieve their goals.

Leaders, however, are typically endowed with power, and power can corrupt (Kipnis, 1972, 1976). Instead of wielding their power for the greater good, leaders might be tempted to use their power in self-serving ways. They may use their power to dominate, rather than to lead. Indeed, although leaders are responsible for promoting the welfare of their groups, leaders may also be motivated to enhance their personal capacity for power and domination. Consequently, although groups often need leaders to achieve important goals, providing leaders with power can make followers susceptible to exploitation. What factors cause leaders to act in ways that prioritize their own power over the goals of the group? To provide answers to this question, we investigated factors within both the person and the social context that determine whether leaders wield their power for self-interest or for the good of the group.

An Essential Tension Between Leadership and Power

To generate predictions about the factors that might cause leaders to prioritize their own power over group goals, we drew upon functionalist evolutionary theories of leadership and power (e.g., Barkow, 1989; Boehm, 1999; de Waal, 1982; Van Vugt, 2006). Throughout evolutionary history, leaders have helped groups manage fundamental challenges such as acquiring and distributing resources, defusing conflicts within the group, and battling rival outgroups. The relationship between leaders and followers reflects a social contract wherein followers trust leaders to make decisions that benefit the group and leaders agree to pursue actions that are in the group's best interests. The prevalence of leadership throughout history and across species suggests that leadership provides a stable strategy for effective group functioning (e.g., Van Vugt, Hogan, & Kaiser, 2008).

Evolutionary theories of leadership, however, also emphasize a fundamental conflict between the motivations of leaders and followers (e.g., Boehm, 1999; Van Vugt et al., 2008; see also Van Lange, De Cremer, Van Dijk, & Van Vugt, 2007). In helping groups achieve their goals, leaders typically are given power, defined in terms of their relative ability to control group resources (see Keltner, Gruenfeld, & Anderson, 2003). That is, hierarchically arranged groups are characterized by asymmetric control over resources, such that leaders (compared with followers) enjoy rel-

atively greater control over the distribution and use of valued group resources. Van Vugt and colleagues (2008) proposed that this power asymmetry causes a fundamental ambivalence in the relationship between leaders and followers. In following a leader, group members relinquish some of their control over resources and group-level decision making. Thus, although group members need leaders to achieve their goals, those group members must give up some of their power, and this makes them vulnerable to exploitation. Consequently, group members may be motivated to decrease the power gap between themselves and leaders because doing so would also reduce leaders' capacity for exploitation.

In contrast, leaders may be motivated to maintain or increase the power gap between themselves and followers, thereby protecting their privileged position within the group. The power enjoyed by leaders affords them many personal benefits. Power confers access to group assets, friends, respect, praise, admiration, happiness, and health (Archer, 1988; Keltner et al., 2003). Throughout evolutionary history, leaders have also experienced greater reproductive success because they have enjoyed greater ability to attract potential mates and have had greater means to care for offspring (Eibl-Eibesfeldt, 1989; Ellis, 1995; Sadalla, Kenrick, & Vershure, 1987). Consequently, many people are strongly motivated toward power and, once given a taste of power, may be driven to protect it (e.g., McClelland, 1975; Tiedens, Unzueta, & Young, 2007).

Moreover, power leads people to become disinhibited (Anderson & Berdahl, 2002; Galinsky, Gruenfeld, & Magee, 2003; Keltner et al., 2003; Smith & Bargh, 2008), to act on the basis of their own preferences and goals (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Guinote, 2007; Smith & Trope, 2006), to objectify others (Galinsky, Magee, Inesi, & Gruenfeld, 2006; Gruenfeld, Inesi, Magee, & Galinsky, 2008; cf. Overbeck & Park, 2001), to become narcissistic (Mead, Baumeister, & Vohs, 2009), and to experience a sense of entitlement (De Cremer & Van Dijk, 2005; Stouten, De Cremer, & Van Dijk, 2005). These effects of power could psychologically liberate leaders from the prosocial motives that normally keep them from exploiting others and prioritizing their own power.

Thus, while followers may wish to reduce the power gap between themselves and leaders to avoid exploitation, leaders might instead be motivated to maintain the power gap and to protect their privileged position within the group (Van Vugt, 2006; Van Vugt et al., 2008). For example, leaders might become vigilant to group members who seem to threaten their power, view those individuals as competitors, and suppress the possible threats those individuals pose. In short, although leaders play an essential role in helping groups achieve their goals, sometimes leaders might be primarily motivated to protect or enhance their own capacity for power.

Although previous theories have hypothesized this tension between leadership and power (e.g., Boehm, 1999; Van Vugt et al., 2008), few empirical investigations have systematically examined factors that influence the way leaders prioritize the needs of the group against their own desire for power. The present work therefore sought to identify factors that determine whether leaders prioritize the goals of the group or their own power. Each variable we investigated follows from consideration of factors likely to affect leaders' desire to maintain the power gap between themselves and others. Our studies examined several variables expected to influence the behavior of leaders, including (a) individual differences in dominance motivation, (b) the stability of the group

hierarchy, and (c) the presence of intergroup conflict. These variables thus reflect aspects of the leader him- or herself, as well as aspects of both the intragroup and intergroup social contexts.

Individual Differences in Power-Related Motives

Whether leaders prioritize their own power over the interests of the group should hinge on the leaders' desire to maintain the power gap between themselves and other group members. We expect the strength of this desire to depend, in part, on individual differences within the leader him- or herself. Thus, in the present investigation, we focused on individual differences in the strength of power-related motivations.

Previous theories have made a distinction between motivations pertaining to prosocial versus antisocial aspects of power. Henrich and Gil-White's (2001) evolutionary theory of status and leadership suggests two general approaches—dominance and prestige—that people use to rise through the ranks of a group hierarchy. Dominance reflects an approach in which individuals attain and use power via force and the selfish manipulation of group resources. Prestige, in contrast, reflects an approach in which people attain influence because they garner respect and use valuable skills or knowledge to help the group achieve its goals. Dominance and prestige reflect two different strategies that characterize the use of power within hierarchical groups. The distinction between dominance and prestige is similar to one made between personalized power (using power for personal gain) and socialized power (using power to benefit other people; e.g., McClelland, 1970, 1975; Winter, 1973; see also French & Raven, 1959). Such distinctions highlight the importance of differentiating prosocial from selfish aspects of power, as power can be used either to benefit the self or to benefit the group.

We expect the tendency to prioritize one's own power at the expense of the group to depend primarily on a leader's level of dominance motivation. As mentioned, dominance reflects a strategy in which people use their power to control others, irrespective of those people's desire to follow. Thus, dominance is a strategy focused on maintaining the power gap between oneself and others (Barkow, 1989; Ellis, 1995; Fodor, 1985; Henrich & Gil-White, 2001). We therefore predicted that, when the power gap was threatened, leaders high in dominance motivation would prioritize their own power over group goals.

Compared with those high in dominance motivation, people low in dominance motivation are not as interested in having power and thus should be less motivated to maintain the power gap between themselves and others. Because the desire for power should not outweigh the desire to further group goals among individuals low in dominance motivation, we expected leaders low in dominance motivation to prioritize group goals, rather than their own power. Indeed, fostering group goals may actually reflect the default behavior for leaders. There is a strong expectation for leaders to prioritize the needs of the group (Van Vugt et al., 2008). Thus, in the absence of strong personal dominance motives, the situational press on leaders to look out for the needs of the group may cause leaders to generally prioritize the group's welfare.

Similarly, personal domination does not necessarily reflect a focal goal for people high in prestige motivation. Prestige reflects a strategy in which people use their high social status to attain positive group outcomes (Henrich & Gil-White, 2001). People

who adopt a prestige-based approach to leadership typically achieve status by displaying desirable traits and abilities that benefit the group, not by dominating others or using power for personal gain (e.g., Chagnon, 1992). People who adopt a prestige-based approach may therefore be less inclined than those who adopt a dominance-based approach to selfishly prioritize their own personal capacity for power over the needs of the group. Hence, we hypothesized that, although leaders high in dominance motivation would prioritize their own power over group goals, leaders high in prestige motivation would not display this prioritization and instead would be inclined to make decisions that benefit the group. In each of the current studies, we examined individual differences in both dominance motivation and prestige motivation, and examined their distinct relationships with patterns of decision making in group leaders.

Instability Within the Group Hierarchy

The hypothesis that leaders high in dominance motivation will prioritize their own power over group goals hinges on the idea that such actions are designed strategically to protect the leader's level of power. If this logic is correct, then the tendency for leaders to prioritize their power should be seen primarily when aspects of the situation signal that their power can be threatened. A key situational factor that may serve as such a signal pertains to the stability of the group hierarchy.

Although social structures vary tremendously with respect to how secure and stable a leader's power is, evolutionarily inspired research suggests that, historically, most social structures have been marked by malleability, instability, and potential for change (e.g., Sapolsky, 2005; Van Vugt et al., 2008; see also Ellemers, Wilke, & Van Knippenberg, 1993). Instability within the hierarchy can signal threats to a leader's power. Consequently, instability may cause leaders to see other group members as possible competitors and to engage in actions that protect their power. That is, if the actions of dominance-oriented leaders are designed strategically to protect their level of power, then those actions should be apparent primarily when the hierarchy is unstable (and their power can be threatened). In contrast, leaders within a stable hierarchy should not need to prioritize their own power over other goals because their power is secure. In a stable hierarchy, therefore, there is little reason to expect that even highly dominance-oriented leaders would make decisions aimed at protecting their power. Thus, dominance-oriented leaders were hypothesized to prioritize their own power over group goals only when the group hierarchy was unstable.

This hypothesis is consistent with evidence that assigning participants high in dominance motivation to a position of power led to conservative decision making—possibly reflecting a desire to protect the status quo and their own power—but only when the hierarchy was unstable, not when the hierarchy was stable (Maner, Gailliot, Butz, & Peruche, 2007). Similarly, assigning participants to a position of power led them to derogate a subordinate, but only when the hierarchy was unstable and their leadership could be revoked (and also only when participants had negative expectancies about the subordinate; Georgesen & Harris, 2006; see also Georgesen & Harris, 1998). Derogating a subordinate could reflect a desire to protect one's own powerful role (though it could also reflect a more general tendency to see others as incompetent). In

another set of experiments that simulated a management conflict, leaders chose to compete with another group as a way of rallying support for their leadership, but only when their tenure as leader could be threatened (Rabbie & Bekkers, 1978). Even among nonhuman primates, instability within a group can cause dominant individuals to react in ways aimed at subordinating other group members and solidifying their own power (Sapolsky, 2005).

The Presence of Intergroup Competition

A third factor hypothesized to affect whether leaders prioritize power or group goals involves a feature of the dynamic between groups. One feature of the intergroup context that historically played a key role in the emergence of leadership is the presence of intergroup competition (Van Vugt, 2006). Throughout human history, rival outgroups have threatened groups' safety and the management of their resources (Baer & McEachron, 1982; Cottrell & Neuberg, 2005; Neuberg & Cottrell, 2008). Leadership is one strategy through which groups have been able to coordinate their efforts at combating threats from the outgroup (Van Vugt & Spisak, 2008).

The presence of intergroup conflict may alter the way leaders think about themselves vis-à-vis their group membership. Social identity theory implies that people's sense of identity stems partially from their group membership (Sherif, 1966; Tajfel & Turner, 1986). People can think of themselves as individuals or as group members, and this has implications for the way people strive for individual or group success. Work by Ellemers suggests a tension between people's desire to move upward through a group hierarchy and their desire for their group to compare favorably with other groups (e.g., Ellemers, Van Knippenberg, de Vries, & Wilke, 1988; Ellemers et al., 1993). When individual identity is salient, people's actions tend to reflect a personal desire for status within the group. However, when group identity is salient, people's actions tend to reflect a desire for their group to compete favorably with other groups. In the presence of intergroup competition, people derive a positive sense of identity primarily from favorable intergroup comparisons (e.g., Correll & Park, 2007; Ellemers et al., 1993; Rubin & Hewstone, 1998). This implies that the presence of a rival outgroup may increase people's psychological focus on intergroup competition and decrease their focus on intragroup competition.

Moreover, interactions among groups generally tend to be more competitive and less cooperative than do interactions among individuals (Insko et al., 1987, 1988; Wildschut, Pinter, Vevea, Insko, & Schopler, 2003). This may stem from the fact that intergroup interaction can activate a schema marked by fear, vigilance to threat, and expectations of aggression and deceit (Maner et al., 2005; Pemberton, Insko, & Schopler, 1996). As a result, the presence of intergroup competition may increase the tendency for members of a group to band closely together and cooperate (Van Vugt, De Cremer, & Janssen, 2007).

Given that competing against another group often requires group members to cooperate and to set aside their personal desires and ambitions, we expected the presence of a rival group to cause dominance-oriented leaders to shift from a mind-set of me versus you (intragroup competition) to one of us versus them (intergroup competition); leaders may change from viewing group members as possible competitors to viewing them as allies. Thus, our main

prediction was that, even if dominance-oriented leaders would otherwise prioritize their own power over group goals, the presence of a rival outgroup would eliminate this tendency and cause leaders instead to prioritize their group's success over the outgroup.

This hypothesis is consistent with evidence that the presence of a rival outgroup leads people (particularly men) to become more group oriented and cooperative (Van Vugt et al., 2007). Similarly, making a collective identity salient—as is likely to occur in the presence of intergroup conflict—causes people to become less competitive with other group members (Kramer & Brewer, 1984). Thus, we expected that intergroup competition would cause dominance-oriented leaders to become more cooperative and to prioritize their group's success.

Overview of the Current Studies

The present investigation tested factors expected to cause leaders to prioritize their own power over group goals. In Experiments 1 and 2, we tested the hypothesis that instability within the hierarchy would cause leaders high in dominance motivation to make decisions designed to protect their own power, rather than decisions designed to enhance group success. We examined two responses reflecting this prioritization of one's own power: the tendency to withhold valuable information from one's group (Experiment 1) and the tendency to ostracize a valuable group member (Experiment 2). In Experiments 3–5, we examined whether the presence of a rival outgroup would cause dominance-motivated leaders to see their group members as allies rather than as competitors and to prioritize group success rather than their own power. We expected intergroup competition to increase perceptions of group members as affiliative and cooperative (Experiment 3) and to decrease perceptions of group members as threatening and competitive (Experiment 4). Experiment 5 directly tested the hypothesis that dominance-oriented leaders would make decisions that prioritized their own power over the interests of their group, but only in the absence of intergroup competition; in the presence of intergroup competition, they were expected instead to prioritize their group's success over a rival group.

Experiment 1

Although sharing information with other group members can enhance group performance (Hinsz, Tindale, & Vollrath, 1997), it can also jeopardize a leader's power (Wittenbaum, Hollingshead, & Botero, 2004). As an initial test of our hypothesis that leaders high in dominance motivation would prioritize their own power over group goals, we examined whether leaders would withhold from their group information valuable to performing a group task. Participants were randomly assigned to a position of stable leadership, unstable leadership, or control. In the stable leadership condition, participants believed that their leadership position was irrevocable. In the unstable leadership condition, participants were told that the hierarchy was malleable and that shifts in the role structure were possible. We predicted that placing participants high in dominance motivation into a position of unstable leadership would cause them to withhold from their group information valuable to performing well on a group task.

Method

Participants. Seventy-four undergraduates at Florida State University (Tallahassee, FL) participated for course credit. Two participants were excluded because a computer malfunction resulted in loss of their data. Five participants were excluded because of suspicion. Sixty-seven participants remained (37 women).

Design and procedure. Participants arrived individually for a study on leadership and group performance. The experimenter informed participants that they would complete a group task with two other participants. Participants were told that the other participants had arrived early and were down the hall completing initial study measures. Participants then completed two subscales taken from the Achievement Motivation Scale (AMS; Cassidy & Lynn, 1989), which was described as a measure of leadership ability. These measures served two purposes. First, they provided justification for the role assignment in the stable and unstable leadership conditions: Participants in these conditions were told that assignment to the leadership position was determined by responses to the AMS. In the control condition, participants were told simply that the measure assessed leadership ability. Second, in addition to supporting the cover story, the AMS provided independent measures of dominance motivation and prestige motivation. The dominance subscale consists of seven items assessing a person's desire for power and authority ("I like to give orders and get things going," "I would enjoy having authority over people," "I prefer to direct group activities myself rather than having someone else organize them," "I would make a good leader," "I am usually leader of my group," "People take notice of what I say," and "I enjoy planning things and deciding what other people should do"; $1 = strongly\ disagree$, $5 = strongly\ agree$; $\alpha = .78$, $M = 3.60$, $SD = 0.50$). Desire for prestige was measured with seven items assessing people's desire for respect and admiration ("I would like an important job where people look up to me," "I like talking to people who are important," "I dislike being the center of attention" [reverse-scored], "I like to have people come to me for advice," "I like to be admired for my achievements" "I want to be an important person in the community," and "I find satisfaction in having influence over others"; $\alpha = .93$, $M = 2.92$, $SD = 1.23$).[1]

After ostensibly scoring participants' responses to the AMS, the experimenter returned and gave participants feedback about their

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[1] Scale development research conducted by Cassidy and Lynn (1989) indicated that these measures of dominance and prestige motivation reflect two reliable and statistically distinct constructs. Their factor analytic work demonstrated that two separable factors emerged, that all items loaded on their intended factor at .30 or higher, and that both scales displayed adequate internal and split-half reliabilities. A confirmatory factor analysis (CFA) based on our own data combined over the current studies ($n = 442$) demonstrated that a two factor model fit the data well (comparative fit index = .93, root-mean-square error of approximation = .07, standardized root-mean-square residual = .06). To ensure the distinguishability of the two factors in our CFA, no cross-loadings were allowed, and errors were not allowed to correlate across factors. Factor loadings ranged from .34 to .80 (with the exception of the one reverse-scored item on the prestige scale, which only loaded at .25), and all factor loadings were significant at $p < .001$. In Cassidy and Lynn's studies, the correlation between the two scales ranged from .35 to .63. In our experiments, the correlation between the scales ranged from .31 (Experiment 3) to .55 (Experiment 4).

score and their role in the group task. Instructions were adapted from previous experiments (e.g., Galinsky et al., 2003). Participants randomly assigned to the stable and unstable leadership conditions were told that they had achieved the highest score on the leadership assessment measure and would therefore serve as group leader; participants were told the other two group members would serve as subordinates. Participants in the leadership conditions were told that the primary job of the leader was to help the group perform as well as it could on the task to maximize the group's performance and winnings. As leader, they would have ultimate say over how the task was structured and would instruct the other group members in performing the task. Leaders would also have the opportunity to evaluate their subordinates' performance at the end of the session. The instructions for the stable versus unstable leadership conditions differed in only one important respect: Participants assigned to the unstable leadership condition additionally were told that the position of leader could be reassigned depending on everyone's performance during the session.

Participants assigned to the control condition also were given positive feedback about their leadership score; this feedback was identical to the two leadership conditions. The key difference between the control condition and the leadership conditions was that participants in the control condition were told that all group members would have equal authority over the task.

The experimenter then left the room, ostensibly to deliver the same information about the group task (including role assignments and responsibilities) to the other participants. While the experimenter was gone, participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), which assessed possible differences among conditions in affect.

When the experimenter returned, participants were given details about the group task—a version of the remote associates task (RAT; Mednick, 1968). Participants were told that the task required them to select one word that tied together a set of three other words. For clarification, the following example was provided: If the word set consisted of *white, scramble,* and *shell,* the fourth word would be *egg.* Participants were told that the group's goal was to complete as many word associations as possible. The total number of correct responses would be summed, and the group would earn $1 for each correct answer. Participants were told that the money would be divided equally among group members. Thus, participants' ability to earn money was linked directly to the performance of the group as a whole.

The group task purportedly comprised two stages: In the first stage, group members would complete the task by themselves; in the second stage, they would complete a second version of the task together (money earned by the group would be summed across both stages). The cover story was that the experiment assessed how group performance depends on whether a group's members work separately or together. In addition to supporting the cover story, the initial phase of the task provided a basis for possible role reassignment, thus allowing us to make participants feel as though their leadership role could be threatened (in the unstable leadership condition).

Next, we introduced the dependent variable, which involved allocation of clues for the first phase of the RAT. The experimenter explained that clues were available and that using good clues would enhance performance. Clues ranged in quality from 1 (*not*

helpful) to 7 (*extremely helpful*). Participants were given this example: If the answer to one of the word associations was *memory,* a Level 7 clue might be "A cognitive function that stores and recalls information and experiences and starts with the letter M," whereas a Level 1 clue would be "Ends with the letter Y." Participants were told that they could select a clue level for themselves, as well as for the other group members. Participants in the leadership conditions were told that this responsibility came with their leadership role; participants in the control condition were told that they were randomly selected to assign clues.

Participants were led to believe that the clue assignments would be anonymous—neither the experimenter nor the other group members would know what clue levels they selected for themselves or for the other group members. To bolster participants' perception of anonymity, they were assigned clue levels via a computer program: Participants thought they were programming the clue level for their computer and the other participants' computers directly from their computer. The program prompted participants to enter a clue level for themselves and then a single clue level that would apply to the other two group members. There were no constraints on what clue levels could be assigned (e.g., if they wished, participants could give both themselves and the others the best possible clues).

In assigning these clues, participants in the unstable leadership condition faced a tradeoff: Their responsibility as leader was to maximize group performance, and assigning the best clues to everyone would optimize group performance. However, giving themselves the best clues and withholding the best clues from the other group members during the first phase of the task would help protect their role in the group because any changes to the role structure ostensibly would be based on each person's initial performance. If participants were inclined to prioritize their own power over the group's performance goal and potential earnings, they could give themselves better clues than they gave to the other group members.

After indicating the clues to be given to the self and to the other group members, participants provided open-ended responses as to why they chose the clue levels they did. These responses were coded later by two independent raters (masked to condition and hypotheses) for the extent to which participants indicated a desire to (a) have power (e.g., "I wanted to make sure that I was still leader in the second task"), (b) enhance group performance (e.g., "Giving everyone the best clues would increase the chances that we perform as well as we can"), or (c) earn money (e.g., "Giving everyone the best clues will help us win money"). Coders rated participants' responses on each of these three dimensions using a 7-point scale (1 = *not at all,* 7 = *very much so*). Reliability between the two raters was good (intraclass correlation coefficient [ICC] for power = .96, performance = .91, and money = .96); each index was normally distributed.

Results

No effects associated with participant gender were found in this experiment or any of the subsequent experiments. We therefore collapsed across gender in all subsequent analyses, and this variable is not discussed further.

Clue assignment.   The primary dependent variable reflected the quality of clues given to the self, relative to the quality of clues

given to the other group members. This difference score was normally distributed; higher numbers reflected giving oneself better clues than one gave to the group members. Means by condition were as follows: $M_{control} = -0.42$, $SD = 1.32$; $M_{stable\ leader} = -0.39$, $SD = 1.34$; $M_{unstable\ leader} = 0.70$, $SD = 1.45$. We regressed this measure on experimental condition (dummy coded to compare the unstable leader condition to each of the other two conditions), level of dominance motivation, level of prestige motivation, and all interactions.

See Table 1 for all regression results. Results indicated main effects of unstable leadership versus control and unstable leadership versus stable leadership. These two main effects were both moderated by individual differences in dominance motivation. We thus evaluated the simple effect of unstable leadership among participants high and low in dominance motivation (1 SD above or below the mean; Aiken & West, 1991). Regardless of the comparison condition (control or stable leadership), participants high in dominance motivation responded to the unstable leadership manipulation by assigning better clues to themselves than to the other participants (both βs > .65, ps < .001, partial rs > .43).

To identify the specific source of variance responsible for the interaction, we analyzed separately the level of clues given to the self and given to the others. As expected, the unstable leadership condition (relative to the other conditions) decreased the quality of clues that high dominance-motivated participants assigned to subordinates (βs < −.47, ps < .05, partial rs > −.26). No effects were observed for clues given to the self (βs < −.15, ps > .27). Thus, the findings reflected a tendency for leaders high in dominance motivation to withhold the best clues from group members in the unstable leadership condition (see Figure 1).

As expected, no significant effects were observed among participants low in dominance motivation (all βs < .24, ps > .15, partial rs < .19). Nor were any effects observed for individual differences in level of prestige motivation (see Table 1). Finally, ancillary analyses confirmed that there were no differences between the stable leadership condition and the control condition. Thus, the only significant effects reflected a tendency for leaders high in dominance motivation to withhold information from other group members in the unstable leadership condition.

Mediational analyses. We hypothesized that, in the unstable leadership condition, dominance-motivated participants would give themselves better clues than they gave others because they wanted to protect their powerful role. Participants' open-ended
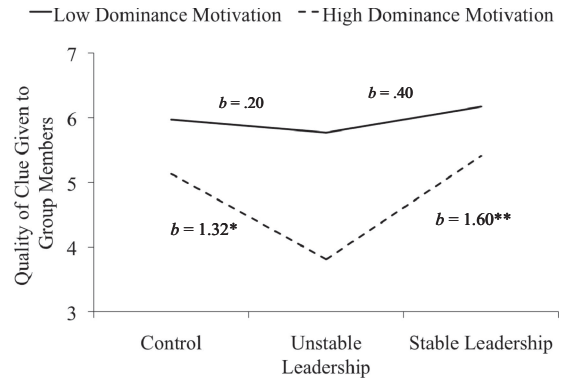

Figure 1. Experiment 1: Participants high (but not low) in dominance motivation responded to an unstable leadership position by decreasing the quality of clues given to subordinates. Higher numbers reflect better clues. Unstandardized regression coefficients reflect comparisons of the unstable leadership condition to the other two conditions. * p < .05. ** p < .01.

responses, coded in terms of how much they wanted to keep their power, served as the putative mediator.

To test for mediation, we first confirmed that the interaction of dominance motivation and unstable leadership (vs. control) predicted desire to protect one's power ($\beta = 3.40$, $p = .004$). Unstable leadership elicited a desire to protect their power among participants high in dominance motivation ($\beta = .66$, $p = .001$, partial $r = .39$), but not low in dominance motivation ($t < 1$). Second, the desire to protect one's power predicted participants' clue assignments ($\beta = .21$, $p = .04$, partial $r = .27$). A Sobel test (Baron & Kenny, 1986) confirmed that the interaction between unstable leadership (vs. control) and level of dominance motivation was mediated by participants' desire to keep their power ($z = 2.48$, $p = .01$; see Figure 2). The same pattern of mediation was observed when comparing the unstable leadership condition to the stable leadership condition ($z = 1.93$, $p = .05$). Notably, almost half the participants in the unstable leadership condition expressed a desire to keep power (45%). This frequency was much higher than those in the stable leadership (13%) and control conditions (10%), $\chi^2(2, N = 67) = 8.68$, $p = .01$.

Ancillary analyses tested the possibility that effects were mediated by a desire to increase group performance, a desire for money, or by positive or negative affect (scores on the PANAS). There

Table 1
Results of Multiple Regression Analyses for Experiments 1 and 2

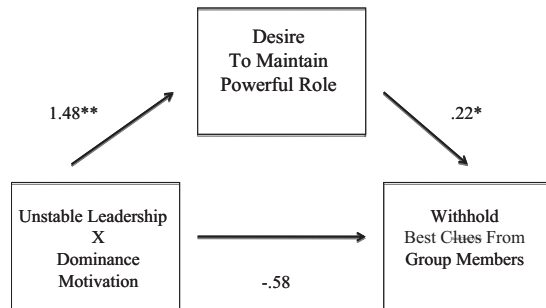| Outcome variable	Experiment 1 (clue level assigned to subordinates)				Experiment 2 (tendency to exclude threatening group member)			
	β	t	p	Partial r	β	t	p	Partial r
Dominance motivation	.41	1.94	.06	.25	.65	1.74	.09	.25
Prestige motivation	.21	1.56	.12	.20	.25	1.32	.20	.19
Unstable vs. control	.47	3.69	.001	−.43	.42	2.79	.008	−.38
Unstable vs. stable	.44	3.10	.001	−.37	.45	2.90	.006	−.40
Dominance Motivation × Unstable vs. Control	.31	2.07	.04	−.26	.76	2.86	.006	−.39
Dominance Motivation × Unstable vs. Stable	.33	2.02	.05	−.25	.55	2.29	.03	−.32
Prestige Motivation × Unstable vs. Control	.14	0.78	.44	−.10	.25	0.85	.40	−.13
Prestige Motivation × Unstable vs. Stable	.10	0.51	.61	−.07	.28	1.03	.31	−.16

Figure 2. Experiment 1: The interaction of unstable leadership (vs. a stable position) and dominance motivation on the tendency to withhold the best clues was mediated by participants' desire to maintain their powerful role within the group. Numbers refer to unstandardized regression weights. * $p < .05.$ ** $p < .01.$

was no evidence that any of these factors mediated the observed effects.[2]

Discussion

Experiment 1 provided initial insight into factors affecting the way leaders prioritize potentially conflicting motivations associated with helping the group versus protecting their own power. When their role in the group was tenuous, some leaders restricted access to information valuable to performance on a group task. By withholding information to protect their power, leaders decreased the likelihood that the group would perform well and thus decreased the potential monetary rewards that they and their group could earn.

Several pieces of evidence confirm that this behavior was driven by a desire to maintain the power gap between themselves and the group. First, effects were seen only among participants high in dominance motivation. There were no effects among individuals low in dominance motivation; nor were any effects observed as a function of participants' desire for prestige. Second, leaders withheld information only when the hierarchy was unstable and their role could be threatened; leaders shared information freely when the hierarchy was stable and their role was secure. Third, mediational analyses confirmed that the tendency to withhold information was mediated by a desire to protect their powerful role within the group. Thus, when their power was threatened by instability within the hierarchy, leaders high in dominance motivation prioritized their own power over the group's performance and potential earnings.

Experiment 2

Highly talented group members can enhance group success, but they can also pose a threat to the security of a leader's power. In Experiment 2, we tested whether leaders would try to exclude from their group the most talented group member. Although doing so would eliminate a potential threat to the leader's power, it would also reduce the group's chance of performing well on the group task. We predicted that people high in dominance motivation would respond to a position of unstable leadership by seeking to exclude a highly talented group member.

Method

Participants. Fifty-nine undergraduates at Florida State University (Tallahassee, FL) participated for course credit. Three participants were excluded because they did not complete the dependent variable. Four were excluded because of suspicion. Fifty-two participants remained (31 women).

Design and procedure. Participants were told that they would be in a group task with two other participants and that leadership of the group would be determined by performance on two measures. The first was the RAT (see Experiment 1). The second was the AMS, which, in addition to bolstering the cover story, also provided measures of dominance motivation ($\alpha = .84$, $M = 3.26$, $SD = 0.72$) and prestige motivation ($\alpha = .93$, $M = 2.92$, $SD = 1.23$).

After ostensibly scoring these measures, the experimenter told all participants that they had earned the highest combined score (RAT plus AMS). Participants received a sheet detailing their scores and those of the other participants. This information was designed so that one of the other group members had earned an especially high RAT score (higher than the participant's) and, therefore, might be perceived as a threat to the participant's role in the unstable leadership position (because role changes would be based on each person's performance). The scores of the other participant were quite a bit lower (this information was identical across conditions).

Participants then received instructions about their role in the group task. These instructions were largely the same as in Experiment 1, with one small modification. To enhance leaders' sense of power, they were told they could distribute monetary rewards associated with the experiment among the group however they saw fit (in Experiment 1, money was to be distributed equally). Next, participants were informed that the group task would consist of another RAT, that the goal was to get as many correct associations as possible, and that the group would earn $2 for each correct answer. The next part of the procedure introduced the dependent variable. Participants were told that more people had shown up for the experiment than were necessary to perform the group RAT. Consequently, if they wished, they could exclude one of the other participants from the experiment. Thus, participants in the unstable leadership condition faced a tradeoff: If the participant chose to work with the high-scoring person, the group as a whole was likely to score better. However, working with the high-scoring person would also increase the likelihood that the participant might lose his or her role in the group (because any role reassignment would be based on each person's performance).

Participants indicated the extent to which they wanted to exclude each of the other group members on a handwritten response form (1 = *not at all,* 7 = *very much so*). They were told that, although the experimenter would make the final decision, the participant's preference would be influential. Participants were assured that their responses were anonymous.

[2] In this experiment and each of the subsequent experiments, no evidence was found to suggest that effects were mediated by positive or negative affect. To streamline presentation of the results, we have not reported these analyses; they are available upon request.

As in Experiment 1, participants also provided open-ended responses as to how they arrived at their decision of whom to exclude. These were later coded by two independent raters (masked to condition and hypotheses) for the extent to which participants indicated a desire to (a) enhance group performance, (b) protect their power, or (c) earn money (7-point scales). All ratings were reliable (ICC for performance = .90, power = .76, and money = .89). Each index was averaged across raters and was normally distributed.

Results

Exclusion of the talented group member. We used regression to test the hypothesis that participants high in dominance motivation would respond to unstable leadership by excluding the high-scoring (but potentially threatening) group member. Experimental condition was dummy coded to compare the unstable leadership condition to each of the other two conditions. Level of dominance motivation, prestige motivation, and all centered interactions were included.

As shown in Table 1, results revealed main effects of unstable leadership (vs. control and stable leadership). Thus, regardless of the comparison condition, being placed into a position of unstable leadership increased the tendency to exclude the high-scoring group member. As expected, both of these effects were moderated by individual differences in dominance motivation. Consistent with predictions, participants high in dominance motivation (1 SD above the mean) responded to unstable leadership by increasing the tendency to exclude the high-scoring group member (βs > .87, ps < .001, partial rs > .45). In contrast, the unstable leadership manipulation had no effect on participants low in dominance motivation (1 SD below the mean; ps > .50; see Figure 3).

Thus, the tendency to exclude the talented group member was limited to participants high in dominance motivation assigned to the unstable leadership condition. As in Experiment 1, no significant effects associated with prestige motivation were observed. Ancillary analyses revealed no differences between the control condition and the stable leadership condition.
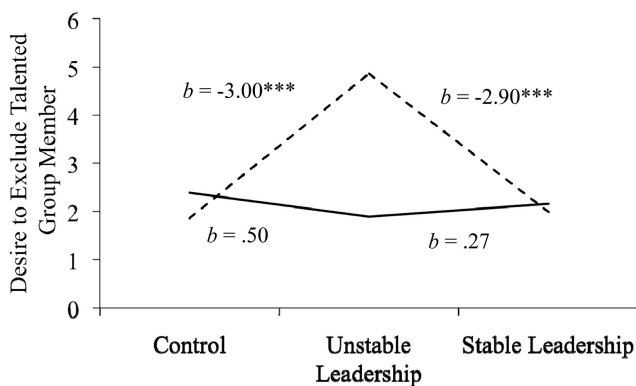

Figure 3. Experiment 2: Participants high (but not low) in dominance motivation responded to an unstable leadership position by increasing their tendency to exclude a highly skilled group member. Unstandardized regression coefficients reflect comparisons of the unstable leadership condition to the other two conditions. *** p < .001.

Mediational analyses. Mediational analyses confirmed that effects were driven by leaders' desire to protect their power. As in Experiment 1, participants' open-ended responses, coded in terms of how much they wanted to protect their power, served as the putative mediator. Unstable leadership (vs. control) interacted with level of dominance motivation to predict participants' desire to protect their power (β = .47, p = .001), and this desire predicted the tendency to exclude the high-scoring group member (β = .48, p < .01, partial r = .44). A Sobel test confirmed that the interaction was mediated by participants' desire to protect their power (z = 2.39, p = .02). The same pattern of mediation was observed when comparing the unstable leadership condition to the stable leadership condition (z = 2.10, p = .02).

Consistent with Experiment 1, almost half of the participants assigned to the unstable leadership condition indicated that they excluded the high-scoring group member because they wanted to keep their power (47%). These responses were far less frequent in the stable leadership (18%) and control conditions (10%), $\chi^2(2, N = 52) = 6.91$, $p = .03$. Additional analyses indicated that effects were not mediated by a concern for group performance or for money.

Discussion

When faced with a tradeoff between protecting their powerful role in the group and enhancing the group's capacity for success, leaders high in dominance motivation prioritized their own power over group goals. When the hierarchy was unstable, dominance-oriented leaders sought to exclude the top performer because that person was seen as a threat to their power. As in Experiment 1, mediational analyses confirmed that the responses of dominance-motivated leaders were caused by a desire to protect their powerful role within the group. As predicted by our theoretical framework, prioritization of one's own power was seen only among leaders high in dominance motivation and only when the hierarchy was unstable and the leader's power could be threatened. As in Experiment 1, no effects of prestige motivation were found, confirming that effects were driven by a desire for power, rather than a desire for status or respect.

Experiment 3

Experiments 1 and 2 showed that, when their role in the group was unstable, leaders high in dominance motivation deprioritized group performance goals to protect their own power. Experiments 3–5 extended the investigation by examining the role of intergroup competition. We anticipated that the presence of a rival outgroup would shift dominance-oriented leaders' mind-set from one focused on intragroup competition (me vs. you) to one focused on intergroup competition (us vs. them). That is, leaders might shift from seeing group members as competitors to seeing them as allies and might make decisions aimed at enhancing group success, rather than decisions aimed at protecting their own power.

In Experiments 3–5, participants were assigned to a position of unstable leadership or control (because effects in Experiments 1 and 2 were seen only under conditions of unstable leadership, the designs of Experiments 3–5 focused on unstable leadership rather than stable leadership). In addition to manipulating participants' role, we also manipulated the presence of intergroup competition.

Participants in the intergroup competition condition were told that their group was competing against another group of participants; those assigned to the no-competition condition were simply told there was another group, but no competition was implied.

Experiment 3 constituted the first test of our hypothesis that intergroup competition would shift dominance-oriented leaders' mind-set from me versus you to us versus them. Such a mind-set should be characterized by heightened perceptions of ingroup affiliation. Therefore, we tested the hypothesis that intergroup competition would cause dominance-oriented leaders to perceive a skilled group member (who in Experiment 2 was perceived as a threat) as high in cooperativeness and affiliation.

Method

Participants. One hundred and four undergraduates at Florida State University (Tallahassee, FL) participated for partial course credit. One participant was excluded for not completing the dependent measure. Four participants were excluded because of suspicion. The final sample was composed of 99 participants (71 women).

Design and procedure. Participants were randomly assigned to leadership condition (unstable leadership or control) and competition condition (no competition or intergroup competition). Thus, the overall design was a 2 × 2 between-subjects design.

The leadership manipulation was identical to that of Experiment 2. Participants first completed two leadership measures (AMS and RAT), which were used to justify role assignment in the leadership condition; the AMS also provided measures of dominance motivation ($\alpha = .77$, $M = 3.57$, $SD = 0.54$) and prestige motivation ($\alpha = .74$, $M = 3.87$, $SD = 0.51$). After the experimenter ostensibly scored the two measures, participants were given feedback about their performance and the performance of the other two group members. As in Experiment 2, this feedback was designed such that, although all participants received the highest combined score, one of the other group members had outperformed participants on the initial RAT.

Participants were given details about their role in the group task; instructions were identical to Experiment 2. Participants assigned to the unstable leadership condition were charged with the tasks of maximizing group performance, evaluating the subordinates, and

dividing the monetary rewards earned in the experiment. Participants were also told that the hierarchy was malleable and that role reassignment could occur depending on performance. Participants assigned to the control condition were told that all group members had equal say over the task and that the money earned in the experiment would be divided equally.

The group task was the same as that used in Experiment 2. Participants were informed that the task consisted of a word-association game, that the goal was to get as many correct word associations as possible, and that the group would earn $2 for every correct word association.

Next, the intergroup competition manipulation was delivered. Participants assigned to the intergroup competition condition were told that their group would be competing against a different group down the hall. Notably, participants were told they would get to keep the money they earned in the task regardless of whether their group won; this ensured that effects of the intergroup competition manipulation were not merely stemming from a desire to keep monetary rewards. Participants assigned to the no-competition condition were told only that there was another group down the hall completing the same experiment; no competition was implied.

Ostensibly to get to know the other group members better, participants were given mock background sheets about the two other group members (participants also completed one to reduce suspicion). After reviewing this information, the dependent measure was administered. Participants were asked to rate each of the group members on four adjectives taken from Wiggins's (1979) Interpersonal Adjective Scale. Using 7-point scales (1 = *not at all*, 7 = *very much so*), participants rated how courteous, respectful, accommodating, and cooperative they thought each of the group members would be. This composite showed good internal reliability (affiliation: $\alpha = .82$, $M = 5.24$, $SD = 0.87$).

Results

The affiliation index for the skilled group member was regressed on leadership condition, competition condition, dominance motivation, prestige motivation, and all centered two- and three-way interactions. As seen in Table 2, the model revealed significant main effects of dominance motivation and leadership condition. In addition to a two-way interaction between leadership

Table 2
Results of Multiple Regression Analyses for Experiments 3–5

Outcome variable	Experiment 3 (perceived ingroup affiliation)				Experiment 4 (perceptions of ingroup threat)				Experiment 5 (place threat in director role)			
	β	t	p	Partial r	β	t	p	Partial r	β	t	p	Partial r
Dominance motivation	.32	2.49	.02	.26	.11	0.88	.38	.11	−.28	2.94	.004	−.24
Prestige motivation	.07	0.54	.59	.06	−.04	0.35	.72	−.04	.08	0.84	.40	.07
Unstable leadership vs. control	.25	2.42	.02	.25	−.01	0.02	.99	−.01	−.25	3.22	.002	−.26
Competition vs. no competition	.02	0.22	.82	.02	−.03	0.28	.78	−.03	.02	0.29	.77	.02
Leadership × Competition	.17	1.68	.10	.18	−.39	3.45	.001	−.39	.12	1.56	.12	.13
Dominance Motivation × Unstable Leadership	.24	1.95	.05	.21	−.19	1.59	.12	−.19	.05	0.48	.63	.04
Dominance Motivation × Competition	.12	0.94	.35	.10	−.09	0.72	.48	−.09	.02	0.27	.79	.02
Prestige Motivation × Unstable Leadership	−.08	0.61	.55	−.07	.03	0.33	.83	.03	−.13	1.37	.17	−.11
Prestige Motivation × Competition	.05	0.41	.68	−.09	−.07	0.59	.56	−.07	.01	0.13	.90	.01
Dominance Motivation × Leadership × Competition	.29	2.24	.03	.23	−.24	2.11	.04	−.25	.20	2.09	.04	.16
Prestige Motivation × Leadership × Competition	−.16	1.28	.20	−.14	.06	0.41	.68	.06	.06	0.67	.50	.06

condition and competition condition, we also observed the predicted three-way interaction between dominance motivation, leadership condition, and competition condition.

Our main hypothesis was that intergroup competition would increase the tendency for dominance-oriented leaders to see the skilled group members as cooperative and affiliative. Indeed, intergroup competition (vs. no competition) increased perceptions of affiliation among leaders high in dominance motivation (β = .52, p = .03, partial r = .31) but not among leaders low in dominance motivation (β = $-$.15, p = .37, partial r = $-$.13). Among control participants, intergroup competition (vs. no competition) did not increase perceptions of affiliation, regardless of the participants' level of dominance motivation (all βs < $-$.22, ps > .25). No effects associated with prestige motivation were found.

Ancillary analysis. Similar (albeit somewhat weaker) results emerged when we examined perceptions of the other (nonthreatening) group member. Although the three-way interaction did not reach significance (β = .21, p = .12), intergroup competition (vs. no competition) increased perceptions of affiliation among leaders high in dominance motivation (β = .52, p = .03, partial r = .31) but not low in dominance motivation (β = $-$.15, p = .37, partial r = $-$.13).

Discussion

Results from Experiment 3 showed that the presence of intergroup competition caused dominance-oriented leaders to perceive a highly skilled group member as especially affiliative and cooperative. This can be contrasted with results of Experiment 2, in which dominance-oriented leaders sought to exclude the highly skilled group member as a means of protecting their own power. Findings of Experiment 3, therefore, provide initial support for the hypothesis that intergroup competition would alter leaders' mindset from one marked by ingroup competition to one marked by ingroup affiliation and group cohesion.

Experiment 4

Experiment 4 tested the hypothesis that, in the absence of intergroup competition, leaders high in dominance motivation would view a highly skilled partner as a threat (conceptually replicating the pattern from Experiments 1 and 2). Experiment 4 also tested the hypothesis that the presence of intergroup competition would reduce those perceptions of threat. This would be consistent with the results of Experiment 3, which showed that intergroup competition caused leaders high in dominance motivation to see a skilled partner as cooperative and affiliative. The dependent measure in the current experiment reflected implicit perceptions of threat and was assessed with a word-stem completion task.

Method

Participants. Seventy-nine undergraduate psychology students at Florida State University (Tallahassee, FL) participated in exchange for partial course credit. Two participants were excluded because they reported suspicion, which resulted in a final sample of 77 participants (48 women).

Materials and procedure. Participants were told they would be performing a group task with a partner (allegedly another participant). As in Experiment 2, role assignment ostensibly was based on responses to the AMS and performance on an initial RAT task. In completing the AMS, participants provided measures of dominance motivation (α = .72, M = 3.15, SD = 0.40) and prestige motivation (α = .75, M = 3.83, SD = 0.58).

After completing the AMS and RAT, participants were provided feedback about their scores. Participants were randomly assigned to a condition of unstable leadership or control, using the same instructions as in Experiments 2 and 3. Regardless of condition, all participants were told that they had earned the highest combined score (RAT plus AMS). However, this information was designed so that participants' partner had earned an especially high RAT score. Given that roles for the RAT team task could change depending on performance in the unstable leadership condition, the high-scoring group member could be perceived as a threat to the leader's role. Participants were told that the group's goal was to get as many items correct as possible; the team would earn $2 for every correct answer.

After giving these instructions, the experimenter delivered the intergroup competition manipulation. Participants in the intergroup competition condition were told that their group would be competing against another group down the hall; whichever group obtained the highest score would win and have their picture placed on the "Wall of Winners" in the lab (though each group would still get to keep whatever money it had earned). Participants in the no-competition condition were told simply that there was another group down the hall completing the same task; no competition was implied. The experiment thus used a 2 (unstable leadership, control) $\times$ 2 (intergroup competition, no competition) between-subjects design.

Next, participants were brought to a new lab room to work on the RAT task with their partner. Participants were seated at a table with two workstations side-by-side—one for the partner and one for the participant. After participants were situated, the experimenter announced that she would retrieve participants' partner so they could begin the task.

The experimenter left a sheet of word stems; participants were asked to complete it while they waited for their partner to arrive. Four word-stem completions on the sheet were designed specifically so that they could be completed with either a relevant threat word or a neutral word (R I __ __ __ could be filled in to form *rival* or a neutral word such as *river*; D A __ __ E R, *danger* or *dancer*; E N __ __ __, *enemy* or *entry*; __ U N, *gun* or *sun*). The number of stems completed as threat words (from 0 to 4) served as an implicit measure of threat accessibility.[3] After participants completed this measure, the experimenter returned to announce that the experiment was over. Participants were probed for suspicion and debriefed.

_____

[3] Because participants were led to believe that they were about to meet their partner, whose presence was immediate and presumably quite salient, we expected the implicit threat measure to reflect perceptions of the partner, rather than perceptions of the more distal threat (the other team down the hall). However, we cannot rule out the possibility that the measure might also have reflected thoughts about the opposing team.

Results

The number of threat stem completions was regressed on level of dominance motivation, prestige motivation, leadership condition, competition condition, and all centered two- and three-way interactions (see Table 2). In addition to a two-way interaction between leadership condition and competition condition, we observed the predicted three-way interaction between dominance motivation, leadership condition, and competition condition.

To test our hypotheses, we first evaluated the effect of unstable leadership (vs. control) separately in the no-competition condition and intergroup competition condition. In the absence of intergroup competition, we expected the unstable leadership manipulation to heighten perceptions of threat among individuals high in dominance motivation (thus conceptually replicating the pattern from the first two experiments). Consistent with this hypothesis, unstable leadership (vs. control) increased the number of threat stems completed by participants high in dominance motivation ($\beta = .59$, $p = .02$, partial $r = .39$); no effect was observed among participants low in dominance motivation ($\beta = .26$, $p = .21$, partial $r = .22$). Within the intergroup competition condition, the opposite pattern emerged: Being a leader (vs. control) decreased, rather than increased, the accessibility of threat among participants high in dominance motivation ($\beta = -.63$, $p = .003$, partial $r = -.48$); again, no effect was observed for those low in dominance motivation ($\beta = -.02$, $p = .89$, partial $r = -.02$).

Also consistent with our predictions, the presence of intergroup competition reduced the accessibility of threat among leaders high in dominance motivation ($\beta = -.79$, $p = .001$, partial $r = -.54$). Intergroup competition had no effect among leaders low in dominance motivation or among individuals assigned to the control (nonleader) condition.

Discussion

Results of Experiment 4 replicate and extend findings from Experiments 1–3. Consistent with our hypothesis that, in the absence of intergroup competition, dominance-oriented leaders would view their high-scoring partner as a rival and a threat to their power, results showed that leaders high in dominance motivation registered high scores on a measure implicitly tapping accessibility of threat. However, when leaders and their partner were competing against a rival group, those perceptions of threat were reduced. This is consistent with Experiment 3, which showed that intergroup competition caused dominance-oriented leaders to see their partner as a cooperative ally. Taken together, the results of Experiments 3 and 4 suggest that, among leaders high in dominance motivation, the presence of a rival outgroup shifts the mind-set from seeing group members as competitors to seeing them as allies—from me versus you to us versus them.

Experiment 5

Experiments 3 and 4 suggest that intergroup competition changed dominance-motivated leaders' mind-set from viewing group members as competitors to viewing them as allies. Consequently, we expected that, instead of subordinating a talented group member and trying to protect their own power (as in Experiment 2), intergroup competition would lead dominance-

oriented leaders to prioritize the success of their group by allowing the talented group member to have an influential role in a group task.

In Experiment 5, participants were given the opportunity to assign roles to group members. Prior to this decision, it was revealed that one group member was very skilled at the group task. He or she could therefore pose a threat to the participant's power. Would participants relinquish some of their control by placing that person into an influential position to help the group perform well, or would participants instead protect their power by placing the person into a subordinate position? We predicted that, in the absence of intergroup competition, leaders high in dominance motivation would prioritize their power and would be reluctant to put the highly skilled group member into an influential role. However, we anticipated that the presence of a rival outgroup would increase power-motivated leaders' desire to put that group member into a position of influence and leadership.

Method

Participants.   One hundred and sixty undergraduate psychology students at Florida State University (Tallahassee, FL) participated in exchange for partial course credit. Five participants were excluded because of suspicion. This resulted in a final sample of 155 students (103 women).

Design and procedure.   Participants were informed that they would be performing a group task with two other participants. They began by completing the AMS, providing measures of dominance motivation ($\alpha = .75$, $M = 3.42$, $SD = 0.49$) and prestige motivation ($\alpha = .71$, $M = 3.76$, $SD = 0.45$). All participants were told that they had earned the highest score on the AMS. Participants assigned to the unstable leadership condition were told that their duty as leader was to help the group perform as well as it could on the group task. They were told that they would have control over the group task, would evaluate the other group members, and would distribute rewards associated with the task. All leaders were told that the hierarchy was malleable; performance would be evaluated throughout the experiment, and the roles could change depending on everyone's performance. Control participants were told that they would be performing a group task with two other participants, that everyone would have equal authority, and that rewards would be distributed equally.

Next, participants were given further details about the group task. The experimenter gave participants a color picture of a Lego structure called a Tanagram (cf. Galinsky et al., 2003) and explained that the goal of the task was to build the Tanagram as quickly as possible. As in Experiments 3 and 4, participants in the no-competition condition were told simply that there was another group performing the same task down the hall. Participants assigned to the intergroup competition condition were told that their group would be competing against the other group; whichever group built the best Tanagram in the least amount of time would be the winner. Thus, the overall design was a 2 (control, unstable leadership) × 2 (no intergroup competition, intergroup competition) between-subjects design.

Participants then were told that the group task comprised three different roles and that each group member would serve a different role. The director's role was to give instructions to the builder on how to build the Tanagram; the builder's role was to put the blocks

in place, following the commands of the director; and the timer's role was to record the amount of time taken to build the Tanagram. Participants were told that the director had the greatest influence over the task, so they should think carefully about whom to put in that position. Participants in the leadership condition were told that responsibility for selecting the roles came with their leadership position; participants in the control condition were told that they would be randomly selected to make the role selections. Participants were given a form on which they indicated how much they wanted each person to fill each different role (1 = *not at all,* 7 = *very much so*).

Before the participant indicated their responses, one of the group members was identified by the experimenter as being particularly skilled at the Tanagram task. Specifically, as the experimenter exited the room, she casually told participants that one of the other group members had been director of the Tanagram task in a different experiment and that this person had performed exceptionally well. Thus, this person could be perceived as either a valuable asset or as a threatening rival, depending upon the participant's mind-set. After indicating their preferences for the role assignments, participants were probed for suspicion and debriefed.

Results

The main dependent variable was the degree to which participants wanted to make the highly skilled group member director of the group task, relative to how much they wanted that role for themselves. This index was computed by subtracting desire to place the self in the role of director from desire to place the skilled group member in the role of director; higher numbers reflected a preference to place the skilled group member in the role of the director.

We used multiple regression to assess the effects of dominance motivation, prestige motivation, leadership condition, intergroup competition condition, and their interactions. As expected, results indicated a three-way interaction between power motivation, leadership condition, and intergroup competition (see Table 2). To evaluate the meaning of the interaction, we first sought to replicate the findings from Experiments 1 and 2. In the absence of intergroup competition, we expected that unstable leadership would cause individuals high in dominance motivation to refrain from putting the skilled group member into the director position, instead preferring that they themselves occupy that role. As expected, unstable leadership (vs. control) reduced participants' willingness to assign the group member (relative to themselves) to the role of director, but this effect was observed only among participants high in dominance motivation ($\beta = -.34$, $p = .001$, partial $r = -.37$); there was no effect among individuals low in dominance motivation ($t < 1$; see Figure 4). The effect among people high in dominance motivation was driven by a decreased desire to place the skilled group member into the role of director ($\beta = -.52$, $p = .002$, partial $r = -.36$). Thus, these findings conceptually replicate Experiments 1 and 2, in which dominance-oriented leaders sought to reduce threats to their power within the group.

Our second main hypothesis was that intergroup competition would increase power-motivated leaders' desire to place the highly skilled group member into the role of director, rather than keeping that role for themselves. As expected, intergroup competition (vs. no competition) increased leaders' desire to place the skilled group
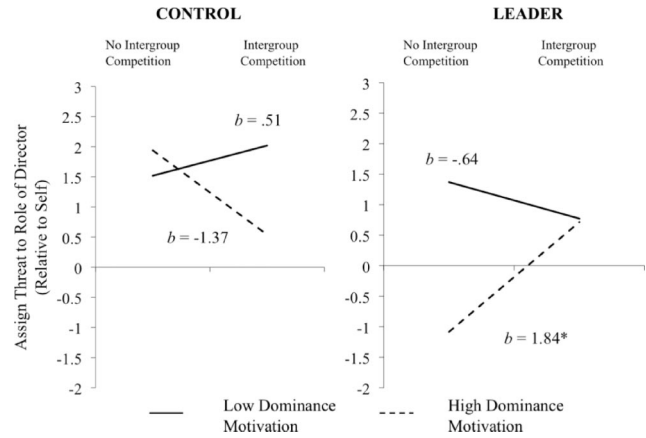

Figure 4. Experiment 5: In the absence of intergroup competition, leaders high (but not low) in dominance motivation preferred to serve as director of the task, rather than assigning the role to a high-scoring group member. This tendency was eliminated by the presence of intergroup competition. Lower numbers reflect a greater desire to assign oneself to the role of director (relative to the other group member). Unstandardized regression coefficients reflect comparisons of the intergroup competition condition to the no-competition condition. * $p < .05$.

member (relative to themselves) into the role of director, and this effect again was observed among participants high in dominance motivation ($\beta = .40$, $p = .03$, partial $r = .25$); no effect was observed among leaders low in dominance motivation ($t < 1$). The effect among leaders high in dominance motivation was driven by an increased desire to assign the skilled group member to the role of director ($\beta = .49$, $p = .006$, partial $r = .32$).

Discussion

Experiment 5 replicates and extends the earlier findings by showing that the decisions of leaders depended upon the presence of intergroup competition. In the absence of intergroup competition, dominance-oriented leaders assigned a highly skilled group member to a role in which he or she would have little influence in the group, even though that person had previously demonstrated a strong ability to perform the task. Although this served to protect the participant's power, the decision was rendered with the knowledge that the person would not be well placed to help the group perform well.

Participants' decisions, however, changed considerably when a rival group was present. Under these circumstances, dominance-oriented leaders were relatively more inclined to place the skilled group member into the director role—a role in which that person would have greater influence. Thus, although dominance-oriented leaders otherwise were inclined to protect their power, the presence of a rival outgroup caused those participants to be less concerned with protecting their power and instead to make decisions consistent with a desire for group success.

General Discussion

Throughout human history, leaders have played a critical role in helping groups manage an array of social and physical challenges. Although leaders are given power to help groups achieve impor-

tant goals, this endowment of power can cause some leaders to experience a tension between wanting to facilitate group success and wanting to maintain their own position of power and privilege. The current studies provide one of the first systematic investigations into the factors that determine how leaders prioritize their own power versus the goals of the group.

In some cases, leaders in our experiments were more interested in protecting their own power than in helping the group achieve its goals. We have documented instances in which leaders sought to preserve their power by withholding valuable information from their group (Experiment 1), seeking to exclude a highly skilled group member (Experiment 2), and assigning a skilled group member to a role of little consequence within the group (Experiment 5). In each case, leaders' actions reduced the likelihood of optimal group performance. Thus, leaders sometimes were willing to jeopardize group goals to protect their own power. Consistent with our theoretical framework, however, the prioritization of power was not observed in all people or under all circumstances. Indeed, the default response was for leaders to act in accordance with the interests of group goals. Thus, the current studies highlighted not only circumstances that led leaders to act selfishly but also those that set the stage for group-oriented responses (cf. Overbeck & Park, 2006).

These studies delineated specific factors determining whether leaders made decisions designed to benefit the group versus decisions that benefited themselves and their power. First, the prioritization of power was observed only among leaders high in dominance motivation. In no case did we see such a tendency in people who lacked strong motivations for dominance. In addition, consistent with theories that differentiate prosocial from antisocial facets of power (Henrich & Gil-White, 2001; Lammers, Stoker, & Stapel, in press; McClelland, 1970; Winter, 1973), the tendency to prioritize one's power was not observed among individuals high in desire for prestige—those who want respect and admiration but who are not necessarily motivated toward power or dominance. The current work fits with other studies suggesting that responses to power are moderated by individual differences related to prosocial versus antisocial aspects of power (e.g., Chen, Lee-Chai, & Bargh, 2001; Magee & Langner, 2008; Van Dijk & De Cremer, 2006).

Second, the tendency to prioritize one's power over group goals was seen only when a leader's power could be threatened by instability within the group. The English historian Lord Acton once said, "Power tends to corrupt and absolute power corrupts absolutely." Indeed, many recent theories of power seem to imply that more power—in the form of absolute and irrevocable authority—will lead to more selfishness and exploitative behavior (e.g., Keltner et al., 2003). Instead, we saw evidence for the selfish pursuit of personal goals when the hierarchy was unstable and people's power could be threatened, not when power was irrevocable. Thus, these studies provide evidence that more power—at least in the form of group stability—may actually moderate some of the corruptive and exploitative effects of power.

Third, the tendency to deprioritize group goals was reversed by the presence of a rival outgroup. Intergroup competition caused even dominance-oriented leaders to make decisions consistent with a desire for group success. Moreover, among those individuals, intergroup competition heightened perceptions of intragroup cooperativeness and reduced perceptions of intragroup threat (Ex-

periments 3–4). These findings suggest that intergroup competition caused dominance-oriented leaders to shift from a mind-set of me versus you to one of us versus them (cf. Van Vugt et al., 2007).

Implications of the Current Research

This research has implications for understanding and managing a range of group processes. Groups provide many benefits when they cooperate, but they quickly lose their value when marked by conflict and turmoil. One of the central tasks of a leader is to facilitate social coordination and cooperation to enhance group success (Van Vugt et al., 2008). The current research suggests ways in which a leader's selfishness might detract from that goal.

One set of implications pertains to the malleability of a group's hierarchy. In the current studies, leaders worried about protecting their power made selfish choices likely to detract from group performance, suggesting drawbacks to the presence of instability within the group. Conversely, knowing that their position was secure led even dominance-oriented leaders to prioritize group performance. Other research suggests benefits to holding leaders accountable for their actions (Lerner & Tetlock, 1999). Taken together, these insights suggest that a stable system in which leaders are secure but accountable could provide a favorable context for group success. The balance between stability and accountability could be achieved through intermittent periods of change within the hierarchy, as is the case with many democratic political systems.

Group hierarchies tend to be least stable during initial group formation or following changes to the composition of the group (e.g., Anderson, John, Keltner, & Kring, 2001; Savin-Williams, 1977). In addition, events that threaten the legitimacy of those in power or enhance the legitimacy of the less powerful can destabilize social hierarchies. Such periods of instability may see heightened attempts on the part of leaders to increase the power gap between themselves and the group. During such times, groups might benefit from increasing accountability and reducing the capacity for exploitation among powerful individuals.

One way to reduce the potential for exploitation is to distribute the capacity for power and decision making across individuals, each of whom possesses skills and knowledge valuable to the group (i.e., a relatively flat hierarchy). Organizations putting too much power in the hands of too few (i.e., a steep hierarchy) may risk making themselves susceptible to corruption. Indeed, steep group hierarchies break with what has typified social groups throughout most of human evolutionary history. Compared with those of other primates, the hierarchical structures of human social groups historically have been relatively flat, with power distributed to a large extent across individuals (Boehm, 1999). Moreover, leadership in ancestral groups was typically domain specific, as any one individual's power was limited to domains in which the person possessed significant expertise (e.g., Diamond, 1997). This relatively egalitarian arrangement served to keep leaders in check and reduced conflict between leaders and followers (Van Vugt, 2006; Van Vugt et al., 2008). However, as group size has grown exponentially in modern societies, leaders' power often extends beyond the domains of their specialized knowledge, and decision-making hierarchies tend to be steeper than those to which the human mind is accustomed. This shift in modern societies toward steeper and more global hierarchy may prompt dominance-

oriented leaders to take advantage of their power. To help quell this tendency, organizations might benefit from distributing power across numerous individuals or teams, each tasked with specific goals needed to further the group's overall interests.

In light of the current findings regarding intergroup competition, organizations might also use competition to enhance group success. If decision-making power is distributed across a number of teams within an organization, for example, one possibility would be to have those teams compete with one another over rewards or recognition. The current findings suggest that the presence of such competition could enhance the propensity for within-group cooperation.

Another implication pertains to the selection of leaders. In our studies, the selfish prioritization of power was observed only in people with strong personal dominance motives. This suggests negative consequences to selecting leaders who are intrinsically attracted to power and authority. Ironically, the people most likely to abuse their power may be the very people who desire it most. With this in mind, groups might benefit from screening and testing individuals to ascertain their suitability for leadership. Rather than those with a desire for authority or domination, those with valuable skills or knowledge may be better suited to leadership. In short, one implication is that leaders ought to be people of wisdom, not of ambition.

Limitations and Further Opportunities for Research

Several limitations to the current studies provide valuable opportunities for further research. The current studies were designed to provide rigorous and controlled laboratory tests of the factors affecting leaders. Actual decision making in groups, however, is dynamic and often involves face-to-face interactions among individuals. One consideration is that, although the responses of participants in our studies were ostensibly anonymous, decisions in real organizations often are not (cf. Lerner & Tetlock, 1999). It is possible that being observed or having one's decisions be identifiable could alter people's actions, potentially curbing the temptation to abuse power. Future research would benefit from applying the conceptual framework developed here to examine the dynamic behavior of leaders in extant groups.

Another limitation is that there are likely to be moderating variables left unexamined by our studies. The extent to which a hierarchy is perceived as legitimate, for example, has been shown to moderate effects of power, such that legitimacy enhances goal pursuit (Lammers, Galinsky, Gordijn, & Otten, 2008) and causes leaders to display a relatively greater sense of personal entitlement and to selfishly take more than their fair share of group resources (De Cremer & Van Dijk, 2005). In the current studies, participants believed they were granted power on the basis of their leadership ability, and thus, participants probably saw their power as being granted legitimately. It would be valuable to test whether the current findings generalize to situations in which the hierarchy seems less legitimate.

The current studies focused on power-related motives that are explicit and consciously accessible. Such motives are distinguishable from implicit motives (McClelland, Koestner, & Weinberger, 1989). Explicit motives promote goal-directed behaviors when situations provide overt incentives. Implicit motives, in contrast, reflect nonconscious drives that promote spontaneous goal-

directed behaviors, typically in a wider range of situations in which explicit incentives may or may not be present. Unlike implicit motives, explicit motives are consciously prioritized and pursued and have clearly defined end-states. The current studies focused on explicit power motives because personal and social incentives were specified by the immediate situation. Implicit motives might be expected to affect the behavior of leaders in situations in which group structures and incentives of leadership are less clearly defined. Research would benefit from applying the framework used in the current research to examine similarities and differences between effects of explicit versus implicit power motives.

Finally, we have focused here on the psychology of leaders, but to provide a fuller picture, research should also examine the psychology of followers (cf. Van Vugt et al., 2008). While leaders may try to enhance the power gap between themselves and followers, followers may devote effort to reducing that gap (Boehm, 1999). In identifying factors that promote selfish behavior among leaders, the current work takes steps toward understanding when and why followers will perceive their groups as sources of oppression and threat rather than safety and strength (cf. Park & Hinsz, 2006). Indeed, like leadership, followership involves an intrinsic tradeoff, in that followers relinquish some of their power and autonomy in return for the benefits of being part of the group. The current work thus provides a springboard for identifying factors that affect whether followers adopt strategies designed to help them increase their autonomy and avoid exploitation.

Closing Remarks

Groups can provide enormous benefits to their members. Yet groups' welfare can suffer tremendously when leaders abuse their power. Indeed, the abuse of power can quickly transform groups from being sources of strength and opportunity to being sources of threat and exploitation. In testing hypotheses about when and why leaders wield power for personal gain or group welfare, our research links leadership processes to recurrent challenges faced by leaders and followers throughout history. The motives of both leaders and followers reflect strategies designed to help them reap the benefits, and avoid the perils, of living in hierarchical groups. As the current studies demonstrate, these strategies depend on an interaction among forces within both the person and the situation—forces that reflect fundamental tradeoffs associated with group living.

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