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# "THE EFFECTS OF GROUP STATUS ON INTRAGROUP BEHAVIOR: IMPLICATIONS FOR GROUP PROCESS AND OUTCOME"

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# The Effects of Group Status on Intragroup Behavior: Implications for Group Process and Outcome

by

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#### The Effects of Group Status on Intragroup Behavior:

#### **Implications for Group Process and Outcome**

#### **ABSTRACT**

How does the status of a group influence the behavior of individuals within the group? This dissertation aims to answer this question by investigating the psychological and behavioral implications of membership in high- versus low-status groups, with a primary focus on the impact of membership in a high-status group. I propose that membership in high-status groups leads to self-oriented intragroup behavior, behavior that best suits members' own interests regardless of the impact on group outcomes. In five studies, I test this idea and examine the psychological mechanism underlying this effect. The first three studies find that membership in a high-status group (a) decreases the resources allocated for the group as members attempt to ensure personal gain; (b) lowers the preference for a competent newcomer who may enhance group outcome but who may jeopardize personal gains; and (c) reduces the amount of voluntary information sharing during group negotiations, hindering group outcomes. The findings also reveal that reducing the conflict between group and personal interests via cooperative incentives encourages group-oriented behavior in high-status groups. The next two studies conceptually replicate these findings focusing on members' information withholding – self-oriented behavior designed to prevent other in-group members from outperforming them. Specifically, results reveal that high-status group-membership increases intentional withholding of information, which in turn impairs group outcomes. However, this damaging pattern of intragroup behavior triggered by membership in a high-status group is alleviated when group members are led to believe that their group status is at stake. Taken together, this dissertation provides converging

evidence that membership in high-status groups increases emphasis on personal interests within the group and that these concerns manifest in intragroup behavior that is distinct from that triggered by membership in low-status groups. The findings illuminate how the status of a group might shape the ways that members interact with other in-group members, as well as document the potential micro- and meso-level mechanisms through which status differences among social groups persist and change.

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#### **CHAPTER I**

#### Introduction

The predominant form of social organization among human groups is one of hierarchy, in which groups are differentiated and rank-ordered with respect to a certain comparative dimension (Brown, 1991; Murdock, 1949; Pratto, 1999). *Fortune* magazine's list of the most admired companies and *U.S. News and World Report*'s ranking of the best colleges and universities are two well-known examples, among many others. Groups are hierarchically differentiated within single organizations too. Some work units and departments are considered higher in status than others; for instance, in an investment bank, the investment banking division is typically seen as a higher status division than the human resources division (de Goede, 2005; Ho, 2009). The relative position of these groups in hierarchically differentiated systems, or each group's status, has been shown to shape many inter-group and inter-organizational phenomena, including in-group and out-group favoritism (Bettencourt, Dorr, Charlton, & Hume, 2001; Brewer & Weber, 1994), and selection, mobility, and exchange partner selection (Burris, 2004; Jensen & Roy, 2008; Long, Allison, & McGinnis, 1979; Pfeffer & Salancik, 1978).

These intergroup phenomena driven by the status difference among groups have their roots in the psychological implications of a group's status for members who belong to that group: members of a high-status group seek to maintain their group's privileged position, whereas members of a low-status group desire to improve their group's disadvantaged position (Ellemers, Doosje, van Knippenberg, & Wilke, 1992; Tajfel, 1978; Tajfel & Turner, 1979). This is not surprising, given that high group status brings a wealth of benefits to its members, such as elevated self-worth (Correll & Park, 2005; Sidanius & Pratto, 1999), better mental health (Adler,

Epel, Castellazo, & Ickovics, 2000; Marmot, 2004), and greater social respect and esteem (Berger, Fisek, Norman, & Zelditch, 1977; Goode, 1978).

The success of these status improvement and protection attempts depends not only on what group members do in intergroup contexts, but also on the behavior of members in intragroup contexts, or specifically, whether group members expend group-oriented effort toward their respective goals. In other words, without mobilizing cooperative efforts from within the group, low-status groups will fail to improve their status and high-status groups will lose their prestigious position (Reicher, 2004; Tajfel, 1981). Identifying when members of groups with different statuses are more or less likely to engage in cooperative group-oriented behaviors will thus help illuminate the effects of group status on member behavior and – perhaps more importantly – why and how hierarchies remain stable and when hierarchies may change.

Existing theory and research have provided part of the answer by focusing largely on the case of low-status groups. Members of low-status groups, which have group values and identities that are already being threatened, are willing to engage in cooperative behavior designed to challenge existing hierarchies and improve their group's status (Tajfel & Turner, 1979, 1986). However, research has also shown that their inclination toward cooperative group-oriented behavior is impeded by various psychological, social, and structural contexts that make self-interested behavior attractive: for example, the possibility that they can leave their low-status group and gain an admission to a high-status group impedes members' group-oriented actions but increases their self-oriented behaviors (Derks, van Laar, & Ellemers, 2009; Ellemers, Wilke, & van Knippenberg, 1993; Ellemers, Pagliaro, Barreto, & Leach, 2008; Taylor & McKirnan, 1984; Taylor, Moghaddam, Gamble, & Zellerer, 1987).

Although this emphasis on low-status groups has both theoretical and practical significance, a systematic understanding of intragroup behavior in high-status groups is still lacking in literature and is needed in order to draw a complete picture of intra- and inter-group dynamics dictated by intergroup status relations. Considering that the desire to improve the current situation has different psychological and behavioral implications than the desire to protect the status quo (Higgins, 1997; Pettit, Yong, & Spataro, 2010; Woolley, 2011; Woolley, Bear, Chang, & DeCostanza, 2013; Zuckerman, 1979), intragroup dynamics in high-status groups may take forms distinct from those in low-status groups. Furthermore, the success or failure of the status improvement attempts by low-status groups are in part, if not completely, dependent upon the behavior of high-status groups (Ellemers & Barreto, 2003), which further requires the understanding of the dynamics caused by high group status.

This dissertation focuses on the intragroup behavior undertaken by members of highstatus groups. At the most general level, I suggest that, like those of members of low-status
groups, the intragroup behavior of members of high-status groups will be guided by the
characteristics of particular contexts in which they are embedded, or more specifically, guided by
which concerns – ensuring personal versus group interests – are highlighted by the
characteristics of the contexts. However, I argue that, unlike members of low-status groups,
whose group value is already being threatened, members of high-status groups are concerned
primarily with personal interests because they are content with the status quo, and, consequently,
the desires to protect their group's status are not salient. Their fixation on personal gain then
leads to the intragroup behavior that best suits their needs, regardless of whether such behavior
will help or harm the group. This dissertation examines this possibility in five studies.

#### Effects of High Group Status on Member Behavior

It is psychologically and socially rewarding to be part of a high-status group, or a group that occupies a higher relative position than other groups in hierarchically differentiated systems (Lorenzi-Cioldi, 1998; Magee & Galinsky, 2008; Sidanius & Pratto, 1999). Compared to members of low-status groups, members of high-status groups receive more recognition and respect because of their membership in these esteemed social groups (Chattopadhyay, Tluchowska, & George, 2004; Chow, Lowery, & Knowles, 2008; Chow, Lowery, & Hogan, 2013; Ellemers, De Gilder, & Haslam, 2004; Mael & Ashforth, 1992). Members of high-status groups feel better about themselves and about their groups, too (Bettencourt et al., 2001; Goode, 1978; Mullen, Brown, & Smith, 1992). As a result, all else being equal, members of high-status groups tend to value their group memberships more and identify with their groups more strongly than do members of low-status groups (Ellemers et al., 1992; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

Strong group identification often causes members to work for the betterment of the group (Ashforth & Mael, 1989; Ellemers et al., 2004; Kramer, Hanna, Su, & Wei, 2001). Thus, some have theorized that membership in a high-status group will increase group-oriented behavior among group members, through its influence on members' identification with the group (Ashforth & Mael, 1989; Dutton, Dukerich, & Harquail, 1994; Tyler & Blader, 2003). Empirical evidence substantiates this possibility, especially group-oriented behavior in intergroup contexts. Members of high-status groups tend to exhibit stronger in-group favoritism (Bettencourt et al., 2001) and speak more favorably of their groups to outsiders (Dukerich, Golden, & Shortell, 2002; Tyler & Blader, 2002) than do members of low-status groups. Members of high-status groups even engage in intergroup behavior that may be considered unfair, in order to serve their group,

for example, derogating low-status groups (Hogg & Abrams, 1988; Sherif, Harvey, White, Hood, & Sherif, 1961), endorsing ideologies that legitimate inequality (Jost & Banaji, 1994; Sidanius & Pratto, 1999), and opposing policies that they perceive to be damaging to their dominance (Bobo, 2000; Lowery, Unzueta, Knowles, & Goff, 2006; Sidanius & Pratto, 1999).

Will membership in a high-status group also promote group-serving behavior in intragroup contexts? At first glance, the answer appears to be yes, given the robust link between group status and in-group identification (Ellemers, 1993) and the evidence that strong group identity promotes cooperation in intragroup settings (e.g., Brewer & Kramer, 1986; Kramer & Brewer, 1984). However, the impact of high group status on group-oriented intragroup behavior has not been clearly demonstrated. For example, Tyler and Blader (2002) found that groupserving behavior in intragroup contexts was not statistically significantly related to group members' perceptions of their group status. De Cremer and van Dijk (2002) showed that the positive effect of strong group identification is not always present; rather, identification does not promote intragroup cooperation when members are content with the status quo, which is often the case in high-status rather than low-status groups.

Furthermore, theory and research suggest that when individuals identify with their group, they not only care about the group's welfare but also seek to manage their own standing within the group (Smith & Tyler, 1997; Tyler & Lind, 1992). Being strongly identified with a group makes an individual's standing within the group particularly self-relevant, such that a lack of respect from members of a group with which an individual is strongly identified is more hurtful than the lack of respect from members of a group with which the individual is not strongly identified (Smith, Tyler, Huo, Ortiz, & Lind, 1998; Tyler & Lind, 1992). This concern about intragroup standing can lead individuals to behave in a self-interested manner to avoid

unfavorable intragroup evaluations. This concern might lead to behaviors that are seen positively by the group, such as norm conformity and rule compliance (Levine & Kerr, 2007; Noel, Branscombe, & Wann, 1995; Tyler & Blader, 2003). However, evaluations of in-group members are often made with regard to performance and achievements, and low performance or low achievement relative to other in-group members typically results in the loss of respect and harm to member's intragroup position (Branscombe, Spears, Ellemers, & Doosje, 2002; Noel et al., 1995). Individuals who are concerned with their intragroup position are, therefore, more likely to act to avoid being outperformed by other in-group members. Studies have shown that the prospect of losing intragroup standing is particularly acute for members in high-status groups, leading to behavior that is not ideal for the group (Duguid, 2011; Duguid, Loyd, & Tolbert, 2012; Seta & Seta, 1996). These findings suggest that the cooperative, group-oriented intragroup behavior among members of high-status groups might have been a byproduct of their pursuit of self-interest, not indicative of their concerns that the group attain the best possible outcomes.

Given these arguments and findings, perhaps an important predictor of group-oriented intragroup behavior in high-status groups is whether members perceive that the value of their group is being contested or challenged, and accordingly, whether they need to expend group-oriented effort to deal with the threat. Consider the case of low-status groups, whose goal is to improve their group's current standing (Ellemers, 1993; Tajfel & Turner, 1986). Because members of low-status groups are exposed to the threats to their groups' value and status (Crocker & Major, 1989; Derks et al., 2009), they typically feel an urge to restore group value by seeking to improve their current standing and to expend effort for the group (Reicher, 2004; Tajfel, 1981). This in part explains why collective action is more readily observed in low-status groups than in high-status groups (Klandermans, 1984; Wright, 2001).

Members of high-status groups, in contrast, are typically content with the status quo because of the numerous benefits associated with group membership (Ellemers et al., 1992; Sidanius & Pratto, 1999). Their satisfaction with the status quo is reinforced by voluntary deference and favor from low-status out-groups (Jost, Burgess, & Mosso, 2001; Jost, Banaji, & Nosek, 2004), which also makes members of high-status groups become confident about their ability to achieve performance or superiority in aspects that give rise to their high-status (Goncalo, Polman, & Maslach, 2010; Walton & Cohen, 2003; Whyte, 1998). This confidence and contentment of members of high-status groups leads them to consider group-oriented action irrelevant or less necessary, as they do not usually experience the need to protect their groups' status, which is a key to ensure group-oriented efforts among group members (Ellemers et al., 1992). As a result, for members of high-status groups, concern about personal gain will be more salient than concern about group welfare – the desire to protect and maintain the groups' high-status in particular.

In view of these considerations, I propose that, compared to members of low-status groups, who are exposed to the need for group-oriented effort to improve their group's standing, members of high-status groups are likely to act in pursuit of personal interests because they usually do not experience compelling reasons to work for the group. In this dissertation, I investigate the general idea that intragroup behavior of members of high-status groups will be guided by their personal interests more strongly than by the groups' interests. As shown in the following studies, the emphasis on self-interests by members of high-status groups will lead to intragroup behavior potentially harmful to the group. I will also show that this emphasis on personal interests might also lead to group-oriented behavior when incentives structures align personal gains with group outcomes. Furthermore, I argue that self-oriented intragroup behavior

among members of high-status groups will be tempered to the extent that certain contextual cues highlight the need to ensure superior group performance and thus alleviate the emphasis on personal gain.

#### **Dissertation Overview**

This dissertation is divided into two sets of studies that examine the basic idea that membership in a high-status group engenders self-oriented intragroup behavior regardless of whether doing so might cause harm to the group as a whole. These studies also explore the different forms that self-oriented intragroup behavior might take and the conditions under which such patterns of intragroup behavior in high-status groups are more or less likely to be observed. The focus on personal interests manifests in increased self-oriented behavior, especially in group situations in which what is best for individual members is incompatible with what is best for the group and, therefore, cannot be pursued simultaneously. The first set of studies examines a range of self-oriented behavior in high- and low-status groups in such situations. Results indicated that membership in a high-status group increases self-oriented behavior, but this tendency is eliminated when personal interests are aligned with those of the group with cooperative incentives that link personal gains directly to group outcomes. I also examine the process and outcome consequences of high group status and cooperative incentive systems. The second set of studies investigates when and why membership in a high-status group increases self-oriented intragroup behavior. A specific form of self-oriented behavior is examined: intentional withholding of information, intragroup behavior that involves opposing implications for the self and for the group. In this second set of studies, I present evidence that membership in a highstatus group increases information withholding among group members, due to their concern for maintaining their intragroup standing. I also investigate the possibility that this potentially

damaging intragroup behavior is mitigated when the desire to protect the group status is highlighted. Group process and outcome implications are also investigated. This dissertation presents five studies, providing converging evidence for the proposed effect of membership in a high-status group on member behavior and documenting potential micro- and meso-level mechanisms through which the status differences among social groups persist and change.

#### **CHAPTER II**

### Self-Oriented Behavior in High-Status Groups: The Role of Cooperative Incentive

Many social and group situations involve conflicting interests, in which what is best for individuals does not correspond to what is best for the collective (Dawes, 1980, Komorita & Parks, 1995). Individual behavior in such circumstances is typically guided by the extent to which individuals care about the welfare of the group relative to their concerns about personal gains (Thibaut & Kelley, 1959; Van Lange, Joireman, Parks, & Van Dijk, 2013). When individuals are concerned with their own outcomes relatively more than the outcomes of their group, they are less likely to cooperate, and vice versa (Charness & Rabin, 2002; Van Lange et al., 2013).

I propose that the intragroup behavior undertaken by members of high-status groups will be guided primarily by the pursuit of personal, rather than collective, interests. This is because members of high-status groups will consider the need for group-oriented action less imperative. Importantly, I do not argue that members of high-status groups are concerned only with their personal outcomes. The point is that while members of both high- and low-status groups have potentially conflicting concerns between self and group interests, the relative importance or salience of these two concerns depends on the status of their respective groups. Such a difference in relative importance placed on either will be enough to elicit different patterns of intragroup behavior.

That the intragroup behavior of members of high-status groups is driven by pursuit of self-interests does not exclude the possibility that members of high-status groups expend group-oriented effort. Specifically, when the group-oriented intragroup behavior is hampered by group

members' focus on personal gains, as I theorize to be more evident in high-status groups, this tendency can be mitigated by structuring cooperative incentives, with which individuals are awarded on the basis of collective outcomes. Because cooperative incentives align personal interests with those of the group, such that individual gains increase (decrease) as the group's outcome increases (decreases), those who prioritize personal gains over group welfare will work for the group's betterment while also pursuing their personal interests (Chen, Chen, & Meindl, 1998; Tjosvold, 1984). Cooperative incentives should, therefore, be particularly effective at eliciting group-oriented efforts among members of high-status groups whose primary focus is on securing personal gains.

In contrast, for members of low-status groups, whom I propose to be relatively more concerned with the group welfare than are members of high-status groups, the effect of cooperative incentives on facilitating group-oriented intragroup behavior, if any, should be weaker. Evidence shows that individuals who value collective welfare, are likely to act in a way that benefits the group even when doing so may be personally costly (De Cremer & Van Vugt, 1999; Fehr & Fischbacher, 2002; Van Lange, 1999). As a result, although cooperative incentives can also promote group-oriented behavior among members of low-status groups, their impact will be weaker for members of low-status groups than for members of high-status groups.

In the three studies reported in this chapter, I investigate how group status influences selforiented intragroup behavior, and explore whether cooperative incentive systems have differential effects for high- and low-status groups. I examine three types of intragroup behavior that often present a dilemma to group members: resource contribution, newcomer choice, and negotiation behavior. Although making contributions to the group's shared resource pool may increase group performance, withholding the resources and using them for personal benefit will help an individual member achieve more than other group members. Recruiting a newcomer who possesses the ability required for a group task may help enhance group performance, but by taking too much of the credit, a competent newcomer may reduce the payoff that incumbent members receive. Finally, sharing information during negotiation is critical to increase group outcomes; however, doing so may place a member at a risk of achieving relatively less than others.

#### Study 1A: Group Status and Resource Contribution

The primary argument in this dissertation is that membership in a high-status group increases individuals' concern about securing personal interests, whether those are financial gains, relative performance, or social standing within the group, which, in turn, leads to behavior that can best address such concerns. The emphasis on personal interests might come at a cost to the group as a whole, as in many social dilemma situations in which what is best for individuals does not correspond to what is best for the group (Dawes, 1980; Komorita & Parks, 1985; Van Lange et al., 2013).

In the first experiment, I examined whether membership in a high-status group affects a resource contribution decision in contexts in which withholding resources might be beneficial individually, whereas contributing resources might help the whole group achieve more. If membership in a high-status group indeed increases individuals' concern about personal interests relative to their concern about collective welfare, then it should also affect individuals' resource contribution decisions such that members of a high-status group contribute less for the group than do members of a low-status group. Study 1A tests these hypotheses.

#### Method

**Participants and procedure.** Ninety individuals (M = 22.66, SD = 4.09, 43 women, 47 men) participated and were paid \$10. Participants were randomly assigned to one of three experimental conditions: High group status vs. Low group status vs. Control. I included the control condition to test whether the effects, if any, were driven by membership in high- versus low-status groups.

The study was advertised as the two-part study on team composition and team performance. Participants could not register for the second part without completing the first part, and had to complete both parts to earn the \$10 payment. The first part was an online personality assessment, in which participants responded to items taken from the revised Minnesota Multiphasic Personality Inventory (MMPI-2, Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) and Navon's (1977) global-local task, and learned that their responses would be used to determine team assignment for the second laboratory part (see Appendix A for the full items). Upon completion of the first part, participants received a personal code to sign up for the laboratory part.

Participants came to the laboratory in groups of at least five for the second part of the study. Once participants were seated in individual cubicles with personal computers, they were told that they would be working as a team on an organizational simulation task. They were also informed that the successful completion of the organizational simulation task required members' creative problem-solving abilities. Next, participants were introduced to a typology of red and blue personalities and were explained that the team members were assigned based on their responses to the online personality questionnaire. Participants then received allegedly personalized feedback for their personality assessments, which included the group status

manipulation (see below for the details). The feedback indicated that they were the "red" personality type, and that other members in their team also had the red personality type. After participants read the feedback, they rated how accurately the feedback described them.

Next, participants were told that before they start to work on the organizational simulation, they would complete a short individual task to determine roles and positions within the team to better simulate task situations faced by organizational teams. Participants were informed that based on their performance on the individual tasks relative to their teammates, they would be assigned to one of five positions (i.e., President, Vice President, Manager, Associate, or Assistant). The best performer would be assigned to the President role, whereas the worst performer would be assigned to the Assistant role. They were further informed that the amount of bonus that an individual member could earn would be determined based on the position that each member played: the President would receive the largest share of the total bonus the team earned, and the Assistant would receive the smallest share of the total bonus the team earned. After this, participants responded to items for manipulation checks and a measure of concern for personal interests.

Instructions for the individual position assignment task were followed. Specifically, participants were told that they would solve questions assessing individuals' integrative orientation, which had been shown to be a valid predictor of employees' ability to work in managerial positions in organizations. At this point, they received ten lab points, which they could use to obtain useful information either for solving questions in the individual task or for the successful completion of the team task. Participants were informed that they could spend lab points to obtain pieces of information that would help their team do better on the organizational simulation, which would be shared with teammates when obtained (e.g., by spending 10 lab

points, their team could get 10 pieces of information for the team task, and these 10 pieces of information would be shared when their team started work together on the organizational simulation). Participants could spend their lab points for personal use as well. They were told that they could spend the lab points to obtain a hint for a question in the individual position assignment task (e.g., by spending 10 lab points, they could obtain hints for 10 questions in the individual task). Participants then indicated the number of lab points they wanted to allocate to get the information for the team task and the number they wanted for the individual task (for a similar task, see Pettit et al., 2010). After allocating their lab points, participants were probed for suspicion about the manipulation and about the tasks. No participant raised explicit suspicion.

The experiment ended at this point, and participants were debriefed and thanked for participation.

#### Manipulation and measures.

Group status manipulation. The group status manipulation was embedded in the personality feedback provided in the beginning of the laboratory session. A typology of red and blue personalities was introduced first; these were described as having been shown to predict the ways in which people see the environment, interact and work with others, and approach and solve problems. As described above, all participants received feedback indicating that they fell under the red personality type, and all participants knew that their team comprised individuals with the red personality.

Following the prior work using bogus feedback about the social category's possession of valued attributes relative to other categories to manipulate the status of a group (e.g., competence, see Ellemers et al., 1993; Ouwerkerk & Ellemers, 2002), group status was manipulated by providing information about the extent to which individuals with different personality types (i.e., red versus blue) possessed an attribute valued and considered important in organizations:

creative problem-solving ability. Specifically, participants in the *High group status* condition read that individuals with the red personality type tended to see connections between various stimuli and different kinds of information, to excel at solving difficult dilemmas, and to find creative solutions that others usually do not see. In contrast, the feedback for participants in the *Low group status* condition indicated that individuals with the red personality type tended to prefer focusing on one thing at a time to having to consider multiple issues simultaneously, to be detail-oriented, and to give up looking for solutions when faced with difficult dilemmas. Finally, in the *Control* condition, participants read general feedback that could be applied to anyone. The feedback did not include any indication of the levels of creative problem-solving ability associated with the personality type: individuals with the red personality type tended to have a need for other people to like and admire them, and to yet be critical of themselves, and to be disciplined and self-controlled on the outside, while be worrisome and insecure on the inside (Forer, 1949, see Appendix B for the full text of the manipulations).

Concern for personal interests. To measure participants' concern about their personal interests, participants were asked to respond to the following two questions: "To what extent do you want to be assigned to the higher-status position (e.g., President or Vice President)," and "How important will it be to you to be assigned to the high-status position in the following team task?" ( $\alpha = .84$ , 1 = not at all, 7 = very much).

**Resource contribution.** Participants' resource contribution was measured by taking how many lab points out of 10 the participants allocated to obtain information for the team. This variable ranged from 0 to 10.

*Manipulation checks*. After reading the personality feedback, participants first indicated how accurately the feedback described them  $(1 = not \ at \ all, 7 = very \ accurately)$ . To assess the

effectiveness of the group status manipulation, I asked participants to indicate their agreement with the statement "Individuals with the red personality are better at finding creative solutions than individuals with the blue personality" ( $1 = strongly \ disagree$ ,  $7 = strongly \ agree$ ). I also asked about participants' expectations of the extent to which individuals with the red personality would be respected by others, using two items adapted from the public-regard subscale of Luhtanen and Crocker's (1992) CSE scale: "People would respect individuals with the red personality," and "Individuals with the red personality would be considered good by others" ( $\alpha = .84$ ,  $\alpha = strongly \ disagree$ ,  $\alpha = strongly \ agree$ ).

#### **Results**

Participants' gender and age did not have a significant effect on any of the variables, and are therefore not discussed further.

**Manipulation checks.** The data indicated that participants took the personality feedback as accurately describing themselves (M = 5.07, SD = 1.08), t(89) = 9.38, p < .001, compared to the scale mid-point (4). The group status manipulation did not have a significant effect on this measure

I then assessed whether participants' perceptions of the extent to which they possessed the creative problem-solving ability relative to other groups varied across different group status conditions. One-way analysis of variance (ANOVA) revealed a significant effect of group status manipulation, F(2, 87) = 17.02, p < .001. Specifically, participants in the *High group status* condition perceived that individuals with the red personality were better at finding creative solutions than individuals with the blue personality (M = 5.80, SD = .89), significantly greater than participants in the *Low group status* condition (M = 3.87, SD = 1.73), t(45.11) = 5.51, p < .001, and participants in the *Control* condition (M = 5.34, SD = 1.29), t(87) = 5.57, p < .001.

Participants in the *Low group status* condition perceived that they were less capable of finding creative solutions than participants in the *Control* condition, t(87) = 4.22, p < .001.

I also examined whether the group status manipulation affected participants' expectations that others would respect individuals with their personality type (i.e., red). One-way ANOVA revealed a significant effect of group status manipulation, F(2, 87) = 4.95, p = .009. Participants in the *High group status* condition expected greater respect from others (M = 5.82, SD = .92) than participants in the *Low group status* condition (M = 5.23, SD = .81), t(87) = 2.58, p = .012, but the difference from the *Control* condition (M = 5.88, SD = .94) was not significant, t(87) = -.27, p > .10. Participants in the *Low group status* condition expected significantly lower respect from others than participants in the *Control* condition, t(87) = 2.83, p = .006.

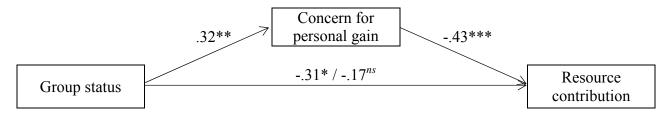
Concern for personal interests. I expected that participants in the *High group status* condition would consider their personal gains in this exercise (i.e., being assigned to higher-status position within the team) more important than would participants in the *Low group status* condition. One-way ANOVA was conducted to test this prediction. The result revealed a significant effect of group status, F(2, 87) = 3.78, p = .027, such that participants in the *High group status* condition were concerned about their personal interests significantly more (M = 5.73, SD = 1.19) than were participants in the *Low group status* condition (M = 4.95, SD = 1.02), and participants in the *Control* condition (M = 5.45, SD = 1.18), t(87) = 2.08, p = .041.

**Resource contribution.** The primary hypothesis was that members of a high-status group would contribute fewer resources for the team (i.e., allocate resources for personal use more) than members of a low-status group, and that this effect would be mediated by members' concern for their own interests. The analysis of the number of lab points allocated to obtain the information for their personal gain revealed a significant effect of group status manipulation,  $F(2, \frac{1}{2})$ 

87) = 3.44, p = .037. Specifically, participants in the *High group status* condition allocated significantly fewer lab points to obtain the information for the team (M = 4.97, SD = 1.54) than participants in the *Low group status* condition (M = 6.06, SD = 1.69), t(87) = 2.59, p = .011, but no fewer than participants in the *Control* condition (M = 5.37, SD = 1.72), t(87) = -.96, p > .10. In addition, the number of lab points allocated for the team task by participants in the *Control* condition did not significantly differ from the number allocated by participants in the *Low group status* condition, t(87) = 1.61, p > .10.

**Mediation analysis.** I further tested whether difference in resource contribution was mediated by concerns about personal gains using a series of hierarchical linear regressions (Baron & Kenny, 1986). I first regressed concern for personal gain on two dummy variables, using the Low group status condition as a reference category. As reported above, this analysis revealed that participants in the *High group status* condition were significantly more concerned about their own interests than participants in the Low group status condition, b = .78, SE = .29, p= .008. Next, the resource contribution was regressed on the same two dummy variables, again using the Low group status condition as a reference category. This analysis also revealed the significant effect of the High group status condition, b = -1.10, SE = .42, p = .011. Finally, when the resource contribution was regressed on the two dummy variables and concern for personal interests, the previously significant effect of High group status dummy dropped to nonsignificance, b = -.61, SE = .40, p > .10, while the effect of concern for personal gain was significant, b = -.63, SE = .14, p < .001. With this result, I further probed the indirect effect of high group status on resource contribution via concern for personal interests, using 1,000 biascorrected bootstrapped samples (Hayes, 2013), and found a significant indirect effect, b = -.49, SE = .22, p = .028, 95% confidence interval (CI) (-1.03, -.15). These results confirm the

Figure 1. Mediation analysis (Study 1A)



*Note*. Unstandardized regression coefficients are presented. Group status was dummy coded, using the low group status condition as a reference category.

\* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001

prediction that membership in a high-status group increases individuals' concerns about personal interests, which in turn increases self-oriented behavior (Figure 1).

### **Study 1B: Group Status and Newcomer Preference**

Choosing a newcomer to a group is often a difficult decision for existing group members. Although it seems desirable to select a newcomer who possesses the required attributes for the group's goal attainment (Fromkin, Klimoski, & Flanagan, 1972; Levine & Choi, 2010), the newcomers may also pose a threat to the incumbents (Duguid et al., 2012). For example, incumbents might be seen as less capable or the newcomer might reduce the potential payoffs that existing members might have been able to obtain otherwise (Duguid, 2011; Duguid et al., 2012; Lewis & Sherman, 2003). Therefore, if existing group members are more concerned with their own personal interests than with those of the group, the group might end up choosing a newcomer who is not the best candidate under consideration.

The second study examines this possibility and how the cooperative incentive system that aligns individual and group interests affects the group members' preferences for a newcomer. Specifically, I predict that, compared to members of a low-status group, members of a high-status group will show a lower preference for a newcomer candidate who has an ability to help

the group perform better, especially when the financial gains that they could earn might be negatively affected by the entry of a competent newcomer. I further predict that this potentially group-harming pattern of disfavor toward a competent newcomer will be alleviated when the incentives are structured such that personal gains are directly linked to group achievement. I also examined participants' actions during their discussions about jointly deciding which newcomer candidate to choose.

#### Method

**Participants and design.** One hundred fifty-four participants (71 women, 82 men, 1 unidentified) ranging in age from 18 to 62 (M = 26.53, SD = 9.07) participated in return for a guaranteed payment of \$5 and a chance to win a bonus contingent on their performance in the experimental session. The study involved a 3 (group status: high vs. average vs. low)  $\times$  2 (incentive: individual vs. group) factorial design. Twenty-one participants raised suspicion about whether they actually interacted with other participants, and therefore were not included in the analysis. The final sample consisted of 133 participants randomly assigned to one of the six manipulated conditions.

**Procedure.** Participants were recruited for a study about online team interaction and team performance. Participants were seated in separate cubicles as they arrived at the laboratory and were informed that they would complete a team task with other participants in different locations connected online. The computer program provided rest of the instruction.

Participants were then told that they would complete an attentional capacity test, which, in reality, was a computerized version of the Stroop Task (Stroop, 1935), to help the experimenter assign them to a team (Appendix C). After completing the test, participants introduced themselves in a few sentences to potential teammates and filled out personality

questionnaires while the computer calculated their scores on the attentional capacity test. This procedure was employed to make the cover story, upcoming team interaction, and discussion about whom to choose as the newcomer more realistic.

After ostensibly scoring participants' responses, the computer delivered feedback about the score. Group status manipulation was given at this time based on individual performance on the test (see below for the details). Participants then read the introductory statements and randomly chosen items from the personality questionnaires from their alleged teammates. In reality, this information was preprogrammed (see Appendix D). Next, the instructions for the team task were given, emphasizing that the successful completion of a team task requires collaboration among team members and that the score on the attentional capacity test is highly predictive of how much a member can contribute to team performance. Participants then responded to two manipulation check items. After the manipulation checks, the incentive type manipulation was given.

After these instructions, participants were informed that one of their teammates (Member D) had to be disqualified for participation based on their responses. Then participants learned that two more participants, who were late but had just completed the same attentional capacity test and personality questionnaire, would like to join their team. However, given that the upcoming team task allowed only four players to be involved at a time, they needed to decide which one to have as the fourth member of the team. Again, participants received the introductory responses of the newcomer candidates, four per each, and were asked to discuss with their teammates whom to have as a new member. In reality, the information about the newcomer candidates was contrived to differentiate these two candidates in terms of the score on the attentional capacity test. Specifically, one candidate was described to have scored above

average on the attentional capacity test, whereas the other candidate was described to have scored below average on the attentional capacity test (Appendix E for the full information about the newcomer candidates).

The instructions stressed that because the given information was chosen randomly, participants and teammates might not have the same set of information. After reading introductory information on the two candidates, participants privately indicated which candidate they would prefer as a teammate, and were directed to the group chat screen.

The chat was preprogrammed so that each of the two remaining teammates asked about both of the potential newcomers (e.g., one member typed "what do you think about Candidate X?"). I assessed the amount and type of information entered by participants. This group discussion through a preprogrammed online chatroom interface lasted about three-minutes (see Appendix F for the full script).

Participants provided demographic information and comments on the study as a probe for any suspicion. Participants were then debriefed, with a detailed explanation of the purpose of the study.

#### Manipulations and measures.

*Group status manipulation.* Information used to manipulate the group status was presented in the individual feedback from the attentional capacity test. Participants were randomly assigned to one of the three status conditions (i.e., high-, average-, and low-status) with the following feedback:

Your score on the attentional capacity test was above average [average, below average]. This indicates that you have an above average [average, below average] attentional capacity and your executive functioning is better [similar, worse] than

average others. We have teamed you up with two other participants to work as a team on the following task. Both of these two participants scored high [average, low] on the previous test as well. Thus your team is composed of members of high [average, low] attentional capacity.

Incentive type manipulation. In the Individual incentive condition, participants read the following instruction: "In addition to a guaranteed payment of \$5, A REWARD OF UP TO \$8, contingent on your team's performance, will be paid to your team. The top contributor from the team will allocate the total reward among team members at his/her own discretion." In the *Group incentive* condition, the instruction was as follows: "In addition to a guaranteed payment of \$5, A REWARD OF UP TO \$8, contingent on your team's performance, will be paid to the team.

Every member will be paid an equal portion of the total reward that your team will earn."

*Manipulation check.* Participants indicated their own and their team's performance on the attentional capacity test, as a status manipulation check. All the participants correctly indicated their own and their team's performance on the attentional capacity test.

**Newcomer preference.** The primary dependent measure in this study was which of the two candidates, one high on the desired ability but potentially threatening, and the other low on the desired ability but less-threatening, participants chose. Thus, the dependent variable was binary, 1 = high-ability candidate, 0 = low-ability candidate.

**Chatroom behavior.** I also coded whether a specific piece of information was mentioned by participants. Of particular interest was whether sharing of the ability information varied across group status and incentive type conditions. An independent coder blind to the hypotheses coded whether the information was mentioned by participants (1 = mentioned, 0 = not

*mentioned*). The total information supplied was calculated by summing the number of information mentioned by participants. Thus, this variable ranged from 0 to 8.

#### Results

As in Study 1A, participants' gender and age did not have a main effect nor interacted with other variables to influence any of measured variables, and thus are not discussed further.

Newcomer preference. I predicted that participants in the *High group status* condition would be less favorable to having a high-ability candidate as a newcomer compared to participants in the *Low group status* and in the *Control* conditions. Consistent with this prediction, overall, a private choice of the candidate varied significantly depending on the group status conditions,  $\chi^2(2) = 7.06$ , p = .03. A logistic regression ( $1 = high-ability \ candidate$ ,  $0 = low-ability \ candidate$ ) using the *Low group status* condition as a reference category revealed that participants in the *High group status* condition were significantly less likely to choose the high-ability candidate, b = -.99, SE = .46, Wald = 4.64, Exp(b) = .37, p = .03, than participants in the *Low group status* condition. However, participants in the *Average* and *Low group status* conditions were equally likely to choose the high-ability candidate, b = .13, SE = .42, Wald = .10, Exp(b) = 1.14, p > .10.

The role of incentive type. I then tested whether the type of incentive systems affected this preference for a low-ability newcomer of participants in the high group status condition. Specifically, I predicted that participants in the *High group status* condition would show preference for a low-ability candidate only when the incentives emphasized individual achievement, but not when the incentives were based on the group performance. To test this, the incentive type was entered into the logistic regression model above along with its interaction

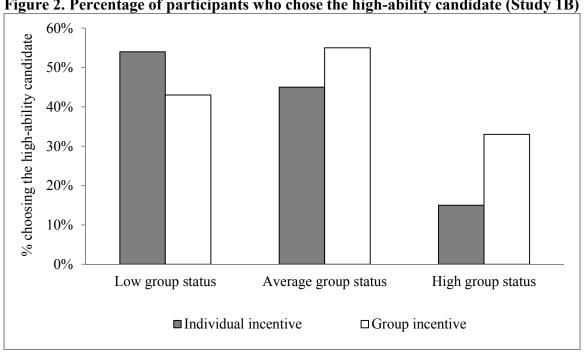


Figure 2. Percentage of participants who chose the high-ability candidate (Study 1B)

term with the dummy variables indicating the *High* and *Average group status* conditions. Neither of the interactions emerged to be significant (for high group status × dummy incentive type interaction, b = 1.21, SE = .94, Wald = 1.65, Exp(b) = 3.35, p = .19; for average group status dummy  $\times$  incentive type interaction, b = .98, SE = .85, Wald = 1.29, Exp(b) = 2.63, p = .26. However, the tests of the significance of the simple slopes at each incentive type revealed that, as predicted, participants in the *High group status* condition showed a preference for a low-ability candidate under the *Individual incentive*, b = -1.61, SE = .69, Wald = 5.47, Exp(b) = .20, p = .02, but not under the *Group incentive*, b = -.41, SE = .64, Wald = .40, Exp(b) = .67, p = .53.

Chatroom behavior. I then explored whether participants in different group status and incentive type conditions exhibited different patterns of behavior in the programmed chatroom. The total amount of information about the newcomer candidates mentioned by participants was submitted to a 3 (group status: high vs. average vs. low) × 2 (incentive type: individual vs. group) ANOVA, which revealed a marginally significant interaction between these two factors. Specifically, participants in the *High group status* – *Group incentive* condition mentioned the information most compared to the amount of information mentioned by participants in the other five conditions, t(127) = 2.35, p = .02. However, for the 8 different pieces of information participants had, the likelihood of each being mentioned was not affected by group status, incentive type, and their interaction, ps > .10.

# Study 1C: Group Status and Information Sharing

Study 1C examined how high group status affects member behavior in a particular context: group negotiation. Negotiation is a social situation in which a number of individuals collectively search for a mutually agreeable and beneficial agreement (Bazerman, Curhan, Moore, & Valley, 2000; Thompson, Wang, & Gunia, 2010). Negotiation situations, in general, (are perceived to) involve a conflict of interests, such that although sharing information about one another's preferences and priorities helps negotiators find an outcome that is beneficial for the group, doing so may increase the risk of being exploited by others and therefore of receiving lower individual return (Thompson, 1991). Importantly, information sharing while negotiating has been shown to be impeded by negotiators' concern about securing their personal gains especially when these personal interests outweigh motivations to work for the group (Bazerman et al., 2000).

Thus, I make and test specific predictions as follows. First, members of a high-status group will share information less than members of a low-status group. Second, the type of incentives for group members will moderate the effect of group status on information sharing, such that high group status will reduce information sharing only when the incentives are given for individual performance, but not when the incentives are established based on overall group

performance. Finally, the level of information sharing during the negotiation will determine overall group outcome, mediating the effect of group status on group outcomes, depending on the type of incentives.

#### Method

**Participants and design.** One hundred and sixty-five individuals (M = 27.23, SD = 11.03, 90 women, 75 men) participated for \$20 and an opportunity to earn bonus prizes on the basis of their performance (see the incentive manipulation for details). Participants were assigned to 55 three-person groups, which were randomly assigned to one of the four experimental conditions created by a 2 (group status: high vs. low)  $\times$  2 (type of incentive: individual vs. group) factorial design.

**Procedure.** Study 1C was conducted in a similar procedure as Study 1A, except that participants actually completed a group task. As in Study 1A, participants had to complete an online personality questionnaire before taking part in the laboratory session (Appendix A). Upon arrival to the lab in groups of three, participants learned that they would participate in a group decision-making exercise that requires members' creative problem-solving abilities. They received an envelope containing a consent form, and the same allegedly personalized feedback about their responses to the online personality questionnaire, which indicated that they fell under the red personality type. As in Study 1A, the group status manipulation was embedded in the personality feedback. After reading the feedback, the group task was introduced, with the confidential role information for each participant. The incentive type manipulation was administered at this point. Next, each three-person group completed the pre-task questionnaire and worked on the negotiation exercise, which was video-recorded. After reaching a decision in

the negotiation task, participants completed the post-task questionnaire, and were debriefed and thanked for participation.

Task. A group negotiation task consisting of three roles and three issues was used (Beersma & De Dreu, 2002; 2005; based on Weingart, Bennett, & Brett, 1993). A multi-party negotiation task was used basically for two reasons. First, a standardized negotiation exercise allows investigation of the group-level outcome consequences across groups more easily (Thompson et al., 2010). Second, information sharing in negotiations is primarily guided by motives that individual negotiators have, that is, self- versus other-oriented (Thompson, 1991), and is therefore likely to be affected by the mechanism proposed in this dissertation.

In this task, participants within a group randomly received different role instructions: they were instructed to act as owners of a bakery, of a flower shop, and of a grocery. Participants were given a case in which the three shops planned to rent a single market together, and had to try to reach an agreement on three issues: the design of the market, the temperature in the market, and the distribution of rental costs. For each issue, there were five possible options. Each group member received a profit schedule that gave information about individual profits (expressed through points) based on each possible option, but not about the other group members' profit schedules. The task provided an opportunity for group members to optimize their joint outcomes by sharing information about their preferences and priorities.

## Manipulations and measures.

*Group status manipulation.* I used the same group status manipulation as used in Study 1A (see Appendix B). In Study 1C, I also provided participants with the colored tag that corresponded to their personality type color (i.e., red), and asked them to wear the tag before

starting the group task. Because everyone received a red tag, participants were able to identify that their group was composed of members with the red personality type.

Incentive type manipulation. The type of incentive was manipulated by using both verbal and written instructions about the possibility of a bonus payment when the group task was introduced. The experimenter verbally emphasized that there would be a chance to earn a bonus based on performance on the task. Participants in the Individual incentive condition were told that the three participants with the largest amount of points in the study would receive an extra cash prize of \$25. In contrast, participants in the Group incentive condition were informed that the group with the largest total amount of points in the study would receive an extra cash prize of \$75, which would be allocated equally among the group members. The same information appeared in each participant's confidential role information.

Information sharing. Past group negotiation research has assessed group processes either by coding verbal transcripts into specific behaviors (Weingart et al., 1993) or by using self-reports of group members' perceptions of the group process (Beersma & De Dreu, 2002). I took both approaches by asking group members to rate their overall experience and by coding the transcribed group process.

To code verbal transcripts of group processes, I reviewed existing coding schemes used in negotiation and group research (Beersma & De Dreu, 2005; Weingart et al., 1993; Weingart, 1997), and decided to code only the behavior that tapped most directly into the behavioral categories of interest to the present investigation: information sharing among group members. Two categories reflect information sharing, that is, provision of information and seeking information from others. The category "information provision" included sharing of preferences within a single issue and priorities across multiple issues (e.g., "I prefer the higher temperature").

The category "information seeking" captured questions with which one member asked other members for their preferences within a single issue and priorities across multiple issues (e.g., "What is your most important issue?"). Following prior work, I summed these two categories and created a score of information sharing (see Appendix G for the coding scheme).

Two independent coders blind to the experimental condition coded the transcripts. Of the 55 recorded group interactions, one coder coded all group discussions, and the other coded a subset of 12 discussions (randomly selected from each condition) to determine inter-rater reliability. For each category, inter-rater reliability reached an acceptable level (Cohen's Kappas > .70). In addition, the median intra-class correlation was .90, p < .001. Thus, the ratings of the coder who had rated all transcripts were used in the analysis.

For the self-report information sharing, I used four items to measure the extent to which information was shared openly during the discussion. These items were included in the post-task questionnaire. The items were: "We engaged in very open communication," "It was easy to talk openly to all members of this group," "I did not tell my teammates anything until they gave me information first (reverse-coded)," and "I did not want to take risks by giving my teammates too much information (reverse-coded)" ( $\alpha = .77$ , 1 = strongly disagree, 7 = strongly agree). A group-level measure of information sharing was created by averaging group members' responses (ICC(1) = .31, ICC(2) = .58, the median  $r_{wg} = .92$ ).

*Manipulation checks.* As in Study 1A, participants indicated the extent to which they thought the personality feedback accurately described them  $(1 = not \ at \ all, 7 = very \ much)$ , at the end of the personality feedback. I used the same items used in Study 1A to check the effectiveness of group status manipulation.

Two items were adapted from Beersma and De Dreu (2002) and used as a manipulation check for the incentive type. These items were: "It is okay to think of my own benefit and not of other people's in this exercise," and "I will try to achieve as many points for myself as I can, regardless of this might affect the amount of points others would receive" ( $\alpha = .81$ , 1 = strongly disagree, 7 = strongly agree).

*Group outcome*. Overall group outcome was measured by summing the individual outcomes within each group.

#### Results

Table 1 provides the descriptive statistics and correlations among study variables. Group members' subjective report of information sharing was positively and significantly correlated with actual information sharing behavior coded by the independent coder, r = .58, p < .001. In addition, the total length of group discussion was not affected by the manipulations, Fs < 1, refuting the possibility that the manipulations, especially low group status manipulation, might lead participants to be less engaged in the task.

**Manipulation checks.** Overall, participants regarded the personality feedback as accurate (M = 5.45, SD = .88), t(164) = 12.95, p < .001, compared to the scale mid-point (4), suggesting that they saw the personality feedback as credible. Neither the main effect of the manipulated variables nor interactions among them were significant on this measure, Fs < 1.

As a check on the group status manipulation, two 2 (group status: high vs. low)  $\times$  2 (type of incentive: individual vs. group) ANOVA were conducted. First, when participants' responses to the question about the extent to which individuals with the red personality possessed greater creative problem-solving abilities than individuals with the blue personality was used as the dependent measure, the analysis revealed only the significant main effect of group status.

Table 1. Means, standard deviations, and correlations among study variables (Study 1C)

	/					<u> </u>
Variable	M	SD	1	2	3	4
1. Group status						
2. Incentive type						
3. Information sharing (coded)	17.25	4.68	19	.15		
4. Information sharing (self-report)	5.96	.78	28*	.27*	.67***	
5. Group outcome	548.41	41.39	11	.20	.51***	.44***

*Note.* N = 55. For group status, low-status was coded -1 and high-status was coded 1. For incentive type, individual incentive was coded -1 and group incentive was coded 1. \* p < .05; \*\*\* p < .001

Specifically, participants in the *High group status* condition agreed to the statement (M = 5.51, SD = 1.45) significantly more than participants in the *Low group status* condition (M = 3.83, SD = 1.70), F(1, 161) = 45.58, p < .001. Similarly, when the two-item scale measuring how others would respect individuals with the red personality was used as the dependent measure, only the group status effect was significant, F(1, 161) = 7.90, p = .006. Participants in the *High group status* condition expected significantly greater respect from others (M = 4.74, SD = 1.09) than participants in the *Low group status* condition (M = 4.25, SD = 1.08).

I also found that participants in the *Individual incentive* condition were significantly more concerned about the individual outcome (M = 3.93, SD = 1.56) than participants in the *Group incentive* condition (M = 2.74, SD = 1.38), F(1, 161) = 26.43, p < .001. No other effects were significant. These results indicated that both group status and incentive type manipulations were effective.

**Information sharing.** I predicted that members of a high-status group would share information less during group negotiation than members of a low-status group when groups had the individual incentives, but not when groups had the group incentives. To test this hypothesis, two 2 (group status: high vs. low)  $\times$  2 (type of incentive: individual vs. group) ANOVA were conducted using the two measures of information sharing. When coded information sharing was

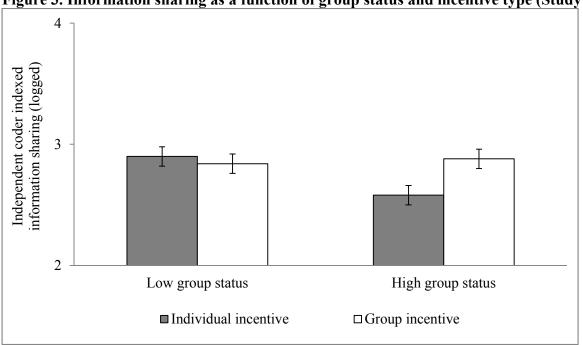


Figure 3. Information sharing as a function of group status and incentive type (Study 1C)

*Note*. Error bars indicate standard errors.

used as the dependent variable, the analysis revealed only a significant interaction between group status and incentive type, F(1, 51) = 4.62, p = .036. Simple effects analyses indicated that under the *Individual incentive*, groups in the *High group status* condition shared information significantly less (M = 14.23, SD = 4.27) than groups in the *Low group status* condition (M = 18.60, SD = 4.45), t(51) = 2.58, p = .01. However, the difference was not significant under the *Group incentive* condition, t(51) = -.48, p > .10, in which groups in the *High group status* condition shared as much information (M = 18.36, SD = 4.85) as groups in the *Low group status* condition (M = 17.54, SD = 4.25), see Figure 3. The analysis using group members' self-reports of information sharing revealed identical results, with the significant interaction of group status and incentive type, F(1, 51) = 4.90, p = .031.

Table 2. Regressions for information sharing and group outcome (Study 1C)

	Information sharing (Coded)	Information sharing (Self-report)	G	broup outcom	me
Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Group status	07	22*	01	01	01
Incentive type	.06	.22*	.02	.01	.02
Group status × Incentive type	.09*	.21*	.02*	.01	.02
Information sharing (Coded)				.09**	
Information sharing (Self-report)					.04**
$R^2 \over \Delta R^2$	.14**	.23***	.13*	.30** .17***	.28** .15***

*Note.* N = 55. Entries represent unstandardized regression coefficients. For group status, low-status was coded -1 and high-status was coded 1. For incentive type, individual incentive was coded -1 and group incentive was coded 1. Coded information sharing and group outcome were log-transformed.

**Group outcome.** As shown in Table 1, both self-report (r = 44, p = .001) and independent-coder indexed information sharing (r = .51, p < .001) was positively and significantly correlated with group outcome.

I predicted that high group status might lead to less desirable group outcomes by reducing the amount of information shared among group members, especially when groups worked under the individual incentive system. I tested this mediated moderation hypothesis using a series of hierarchical linear regressions, complemented by the examination of the indirect effects of group status on outcomes via information sharing in different types of incentive systems. As shown in Models 1 and 2 of Table 2, group status and incentive type interacted to predict the amount of information sharing, both based on the independent coder's index (Model 1) and participants' self-reports (Model 2). Next, the group outcome was regressed on group status, incentive type,

<sup>\*</sup> p < .05; \*\* p < .01; \*\*\* p < .001.

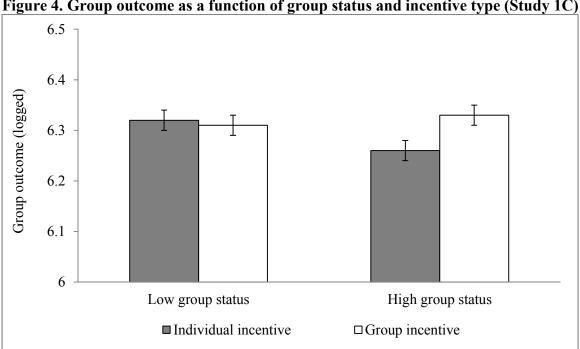


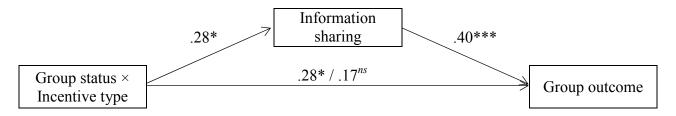
Figure 4. Group outcome as a function of group status and incentive type (Study 1C)

*Note*. Error bars indicate standard errors.

and the interaction between the two (Model 3), which revealed the significant interaction, b = 02. SE = 01. p = .04 (see Figure 4). Finally, when the information sharing was entered into the regression, it was a significant predictor of group outcome whereas the previously significant group status  $\times$  incentive type interaction became no longer significant, ps > .05 (Models 4 and 5).

I used a bias-corrected bootstrap procedure to probe the conditional indirect effect of group status on group outcome via information sharing when individual versus group incentives were given (Hayes, 2013; Preacher, Hayes, & Rucker, 2007). Consistent with the prediction, the conditional indirect effect of group status on group outcome in the *Individual incentive* condition was significant, b = -10.21, 95% CI (-19.31, -1.11), whereas the conditional indirect effect was not significant in the *Group incentive* condition, b = -.29, 95% CI (-6.97, 6.39). These results provided further support for my predictions regarding the effect of group status on information sharing, and potential influence of group status on group outcomes (Figure 5).

Figure 5. Mediation analysis (Study 1C)



*Note*. N = 55. For group status, low-status was coded -1 and high-status is coded 1. For incentive type, individual incentive was coded -1 and group incentive was coded 1. Figure entries are standardized regression coefficients.

\* *p* < .05; \*\*\* *p* < .001.

## **Summary**

Three studies in Chapter 2 examined the idea that membership in a high-status group makes concerns about personal gains more salient than concern about group outcomes, and explored how this emphasis on personal gains manifests in three different intragroup behaviors: resource contribution, newcomer choice, and information sharing. All these behaviors were examined in contexts in which attempts to maximize personal gain come at the expense of the group's optimal outcome.

Converging evidence was obtained from these three studies: membership in a high-status group induces behaviors that suit personal needs, more likely than does membership in a low-status group. The emphasis on personal interests manifests in reduced resource contribution for the group's betterment (Study 1A); lowered preference for a high-ability newcomer (Study 1B); and reduced information sharing during negotiation (Study 1C). Study 1C also illustrated the process and outcome consequences of high group status: members of a high-status group achieved less desirable outcomes than members of a low-status group.

However, I also found that such focus on personal gain may not necessarily lead to intragroup behavior harmful to the group. Rather, this concern about personal interests can be

guided to promote intragroup behavior that aids the group in improving its performance, by designing incentives properly. Studies 1B and 1C reported this possibility that the potentially detrimental patterns of intragroup behavior in a high-status group (i.e., the preference for a low-ability newcomer and the low levels of information sharing) are alleviated when personal interests are clearly and directly linked to the group outcomes. That is, members of a high-status group engage in behavior that benefits the group when personal gains can be maximized by maximizing group outcomes.

These studies focused on the pursuit of individual financial incentive (as opposed to group financial incentive) as one instantiation of personal interests. Although the pursuit of personal financial incentives is often treated as a strong driver of intragroup behavior, self-interests involve non-financial interests too, such as the desire to maintain or enhance status in a group (Pettit et al., 2010). As I theorized above, one reason that high group status turns members' attention to personal interests is that the high group status might cause its members to care about their relative standing within the group. Two studies in the next chapter focus on this idea and explore how group status affects the extent to which members care about their intragroup standing and how this concern affects their intragroup behavior.

#### **CHAPTER III**

# Self-Oriented Behavior in High-Status Groups: The Role of Status-Relevance of Context

The findings in Chapter 2 provide evidence that membership in a high-status group highlights the importance of personal gains relative to those of the group, leading intragroup behavior to be guided primarily by the pursuit of gain for the self. I also found that the focus on self-interests can manifest in behavior that is damaging to the group as a whole as well as behavior that is potentially beneficial for the group, depending on how incentives are structured.

The main objective of the studies reported in Chapter 3 is to gain a deeper understanding of the psychological mechanism underlying these findings. I propose that the intragroup behavior of members of high-status groups is determined primarily by whether they can achieve personal gains, because the desire to protect the group status and the need to expend group-oriented effort are not salient – or less salient – to them. If this is true, then the self-interested intragroup behavior among members of high-status groups should be reduced when such needs are made salient.

Members of high-status groups experience the desire to protect their group status and are more likely to engage in group-oriented behavior when they perceive a threat to the group's status, for example, when low-status groups narrow the disparity between groups or when the legitimacy of the group's dominant position is questioned (Sachdev & Bourhis, 1987; Scheepers, Ellemers, & Sassenberg, 2013; Tajfel & Turner, 1986). Empirical evidence corroborates this possibility, showing that members of high-status groups work to protect their group's status by becoming hostile to status-challenging out-groups (Jetten, Spears, & Postmes, 2004) and by

expending extra effort to achieve better outcomes and, consequently, to ensure the legitimacy of their superiority (Pettit & Lount, 2010).

Even in the absence of overt status threat, the desire to protect the group's status may also become salient to members of high-status groups when they engage in tasks that are relevant to the domains through which they have achieved their high-status (Scheepers & Ellemers, 2005; Scheepers et al., 2013). That is, group members seek to establish their superiority to low-status out-groups in status-relevant domains (Bettencourt et al., 2001; Oldmeadow & Fiske, 2010). Take, for example, students of a highly ranked university. If the university is ranked highly because of its reputation for producing students with excellent critical thinking skills, students are more likely to care about their superiority in critical thinking skills. Failure to do so would jeopardize the university's superior ranking relative to other universities (Scheepers & Ellemers, 2005). In contrast, if the task at hand involves a domain that is not relevant to the group's status, members of high-status groups do not necessarily care to excel in that particular domain but rather downplay the importance of the domain and let other groups dominate in that domain (Holoien & Fiske, 2012; Oldmeadow & Fiske, 2010). For college students, if the task at hand is not relevant to the status-defining domain, such as the athletic prowess of graduates, students might be less likely to experience the need to excel in that domain. In a status-irrelevant domain, it might, instead, be members of low-status groups who will attempt to achieve superior performance (Bettencourt et al., 2001; Oldmeadow & Fiske, 2010; Schmader, Major, Eccleston, & McCoy, 2001).

In two experiments, I investigate how the status-relevance of interaction contexts affects intragroup behavior. Specifically, I predict that the proposed difference between the levels of self-oriented behavior among members of high-status groups and among members of low-status

groups will be eliminated when group members perceive that the task context is related to the domain in which group status is differentiated. The focal behavior examined in these two studies is group members' intentional withholding of information, a behavior that is driven by self-interests (e.g., individuals trying to prevent others from outperforming them) and is detrimental to group outcomes (Evans, Hendron, & Oldroyd, 2015; Steinel, Utz, & Koning, 2010). Given the importance of information sharing in determining group outcomes (Argote & Ingram, 2000; Argote & Miron-Spektor, 2011; Lu, Yuan, & McLeod, 2012; Mesmer-Magnus & DeChurch, 2009), I also explore the process and outcome implications of group status and the status-relevance of task. Specifically, I hypothesize that members of a high-status group will share information less, therefore achieving less desirable outcomes than members of a low-status group, only when the task is not relevant to the status-defining domain, but not when the task is relevant to the group status.

## Study 2A: Group Status and Intention to Withhold Information

## Method

Participants and design. One hundred sixty-six working adults (56 women, 110 men) ranging in age from 20 to 53 (M = 30.74, SD = 6.65) recruited via Amazon's Mechanical Turk participated in the study and were paid \$0.50 (Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). Participants were randomly assigned to one of the four conditions created by a 2 (group status: low vs. high)  $\times$  2 (status-relevance to of task: no relevance vs. high relevance) between-participants design. Four participants failed to pass the attention check item (Oppenheimer, Meyvis, & Davidenko, 2009), resulting in a final sample of 162. The results reported below remained identical when these participants were included in the analyses.

Procedure. Upon entering the study website, participants read a description of a hypothetical company with which group status was manipulated, and answered questions measuring their concern about intragroup standing. Next, participants read a description of a situation in which they were teamed up with other equal-ranking employees at the company for a project, which varied in terms of its relevance to the company status. Participants then responded to items assessing their intention to withhold information from peers in their project teams and the effectiveness of manipulations, and provided their demographic information.

# Manipulations and measures.

*Group status manipulation.* The study was introduced as one concerning workplace attitudes and behaviors. All participants were asked to imagine that they were associate consultants at Strathmore & Co. Group status was manipulated by providing information about the company's ranking and the extent to which the company was respected in the industry. Specifically, participants in the *High* [Low] group status condition read:

Imagine that you are an associate consultant at Strathmore & Co., a consulting firm which is currently ranked high [low] on the Consulting Magazine's Consulting Firms ranking. According to the magazine, Strathmore & Co. is very well [not well] respected by clients and industry alike.

Concern for intragroup standing. After reading the company description, participants responded to four items measuring their concern about maintaining their standing within the company, adapted from Blader and Chen (2011). These items included: "I would be very sensitive to how I am being evaluated compared to other consultants in this company," "I would be concerned that other consultants at Strathmore consider me not having much to offer to the firm," "I would be concerned that other consultants at Strathmore see me as an unworthy

member of the firm," "I would be very sensitive to how others view me in this firm" ( $\alpha = .80$ , 1 =  $strongly\ disagree$ , 7 =  $strongly\ agree$ ).

Status-relevance of task manipulation. After responding to the items assessing concern for intragroup standing, all participants read: "Now imagine that you are staffed with other associate consultants at Strathmore & Co. for a project on designing strategies to launch and implement new information technology for one of your clients." Participants in the No relevance condition proceeded to the next set of questions without any other information. In contrast, participants assigned to the High relevance condition received the following information about the project: "Strategy formulation for launching and implementing new technology is one of the core areas weighed heavily in the Consulting Magazine's Consulting Firms ranking."

Information withholding intention. Information withholding intention was assessed using four items adapted from the evasive hiding subscale of the knowledge hiding scale (Connelly, Zweig, Webster, & Trougakos, 2012). Specifically, participants were prompted: "If other consultants in this project team ask you for specific information, how likely is it that you would..." and responded to "Agree to help him/her but never really intend to," "Agree to help him/her but instead give him/her information different from what he/she wants," "Tell him/her that I would help him/her out later but stall as much as possible," and "Offer him/her some other information instead of what he/she really wants" ( $\alpha = .93$ , 1 = not at all likely, 7 = very likely).

*Manipulation checks*. To assess the effectiveness of group status manipulation, participants were asked, "What is the status of the company, Strathmore & Co. in the consulting industry?" ( $1 = very \ low$ ,  $7 = very \ high$ ), and "To what extent do you think Strathmore & Co. is admired in the industry? ( $1 = not \ at \ all$ ,  $7 = very \ much$ ). I averaged these two items to create a group status manipulation check score ( $\alpha = .90$ ). The effectiveness of task relevance

manipulation was assessed by asking participants two items: "How relevant is the area that your project team will cover to the Consulting Magazine's rankings of consulting firms?" and "How important is your team's ability to successfully complete this project in determining your company's ranking in the industry?" ( $\alpha = .81$ , 1 = not at all, 7 = very much).

### **Results**

Table 3 presents means, standard deviations, and correlations among study variables in Study 2A. Participant gender and age neither had main effect nor interacted with other variables to influence the variables of interests, and are therefore not discussed further.

**Manipulation checks.** A 2 (group status: high vs. low)  $\times$  2 (status-relevance of task: no relevance vs. high relevance) ANOVA was conducted to check whether group status manipulation was effective. The analysis revealed a significant main effect of group status only, such that participants in the *High group status* condition perceived the firm to be significantly higher in status (M = 5.82, SD = 1.14) than did participants in the *Low group status* condition (M = 3.93, SD = 1.74), F(1, 158) = 68.14, p < .001.

I also examined the effectiveness of status-relevance of task manipulation by conducting the same ANOVA on the status-relevance manipulation check score. Results showed a significant main effect of status-relevance only, F(1, 158) = 8.22, p < .01, such that participants in the *High relevance* condition perceived that the project was significantly more relevant to the ranking of the firm (M = 5.76, SD = 1.13) than participants in the *No relevance* condition (M = 4.66, SD = 1.17). These results indicated that the manipulations worked as intended.

Concern for intragroup standing. As predicted, participants in the *High group status* condition reported significantly higher concern about maintaining their standing within the firm

Table 3. Means, standard deviations, and correlations among study variables (Study 2A)

Variable	M	SD	1	2	3
1. Group status					
2. Status-relevance of task					
3. Concern for intragroup standing	4.91	1.08	.21**	03	
4. Information withholding	2.93	1.78	.15*	06	.31***

*Note.* N = 162. For group status, low group status was coded -1 and high group status was coded 1. For status-relevance of task, non-relevant task was coded -1 and relevant task was coded 1. \* p < .05; \*\* p < .01. \*\*\* p < .001.

(M = 5.14, SD = .94) than participants in the *Low group status* condition (M = 4.68, SD = 1.17), t(160) = 2.72, p = .007.

Information withholding intention. Concern for intragroup standing was positively and significantly associated with information withholding intention, r = .31, p < .001, suggesting that individuals might strategically utilize their information to manage their relative intragroup standing, by intentionally withholding it even when it is requested.

I predicted that membership in a high-status group would increase individuals' intention to withhold information because of heightened concern for intragroup standing. Consistent with this prediction, the size of the indirect effect of group status on information withholding intention via concern for intragroup standing was b = .11, SE = .06, and its 95% confidence interval (*CI*) did not include zero (.02, .25), indicating that concern for intragroup standing mediated the effect of group status on information withholding intention.

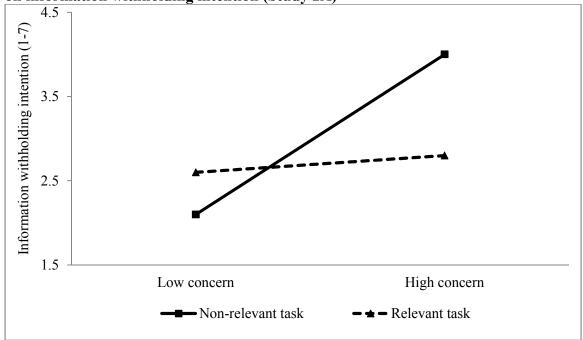
The role of status-relevance of task. I also predicted that, although members of a high-status group might be more likely to strategically withhold their information to manage their intragroup standing, these inclinations would be alleviated when their attention was directed to protecting their group's status. To test this prediction, I conducted a second-stage moderated mediation analysis following the bootstrapping-based analytic approach recommended by

Table 4. Regressions for concern for intragroup standing and information withholding intention (Study 2A)

	Intragroup concern	Information withholding intention		
Variable	Model 1	Model 2	Model 3	
Group status	.23**	.25†	.14	
Status-relevance of task		09	07	
Group status		31*	22	
× Status-relevance of task				
Concern for intragroup standing			.46**	
Concern for intragroup standing × Status-relevance of task			26*	
$R^2$	.04*	.05*	.15***	
$\Delta R^2$			.10***	

*Note.* N = 162. Entries represent standardized regression coefficients. For group status, low-status was coded -1 and high-status was coded 1. For status-relevance of task, no-relevance task was coded -1 and high-relevance task was coded 1.

Figure 6. Interactive effect of concern for intragroup standing and status-relevance of task on information withholding intention (Study 2A)

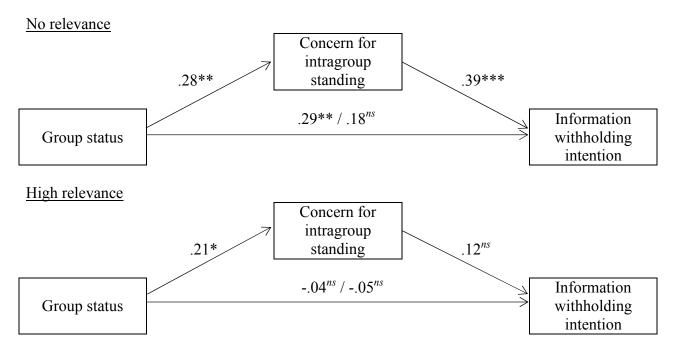


<sup>\*</sup> *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001.

Edwards and Lambert (2007) and Hayes (2013). I conducted a series of hierarchical ordinary least squares regressions. First, when information withholding intention was regressed on group status (independent variable), task relevance (moderator variable), and their interaction term, only the interaction between group status and task relevance was significant (b = -.31, SE = .14, p = .02, Model 2, Table 4). Next, concern for intragroup standing (mediator variable) and its interaction with task relevance were added to the model. When the mediator and its interaction with the moderator were included in the model, the mediator × moderator interaction was significant (b = -.26, SE = .13, p = .05, Figure 6) while the previously significant independent variable × moderator interaction was no longer significant (b = -.22, SE = .13, p = .10, see Model 3, Table 4), suggesting that the task relevance moderated the link between concern for intragroup standing and information withholding intention.

I then estimated the conditional indirect effect of high-status group-membership on information withholding intention via concern for intragroup standing when the task was relevant to the group status and when it was not. When the task bore no relevance to the group's status, membership in a high-status group increased information withholding intention via concern for intragroup standing, conditional indirect effect = .16, SE = .07, 95% CI (.03, .34). However, when the task was relevant to the group's status, the conditional indirect effect was not significant, b = .04, SE = .05, and its 95% CI included zero (-.03, .15). These conditional indirect effects differed significantly from one another (the index of moderated mediation = -.13, SE = .09, 95% CI (-.36, -.01)). In other words, concern about intragroup standing, increased by membership in a high-status group, predicted information withholding intention only when the task had no relevance to group status (see Figure 7).

Figure 7. Simple paths at each level of the moderator variable (Study 2A)



*Note.* N = 162. For group status, low-status was coded -1 and high-status is coded 1. Figure entries are standardized regression coefficients. \*p < .05; \*\*p < .01.

## Study 2B: Group Status and Information Withholding During Group Negotiation

## Method

**Participants and design.** Two hundred twenty-five undergraduate students in 75 three-person teams (M = 20.30, SD = 1.26, 111 women, 114 men) participated in the study for either extra course credit (n = 166) or for \$10 cash payment (n = 59). Each three-person team was randomly assigned to one of the five experimental conditions created by a 2 (group status: high vs. low) × 2 (status-relevance to of task: no relevance vs. high relevance) + 1 (control) design.

**Procedure.** Upon arrival at the laboratory, each participant received an individual packet that provided general instructions and a short survey, which were read and responded to individually. The group status and status-relevance of task manipulations were included in this

packet. After this, three participants sat together at a table, and a team task was introduced with each participant receiving individual role information for the task. They then engaged in a three-person negotiation exercise. Upon reaching an agreement, participants completed a post-task questionnaire.

**Task.** Study 2B used a multi-party negotiation task, adapted from the Architectural Design Firm exercise (Palmer & Thompson, 1995), for the same reasons noted in Study 1C.

The exercise was a house design project, in which a client specified his fixed budget and the features that should be included in the design. Participants were randomly assigned to one of three roles (finishing expert, land expert, and structural expert). Each expert was given 17 unique features that could be included in the design of the house, and that were unknown to the other members. Each feature was associated with a certain price for the client and provided a corresponding profit for the expert if included in the design.

Although the task was essentially distributive, it involved integrative potential. The competitive aspect derived from the client's limited budget: participants had to decide how to allocate the client's budget to include one another's features in the final agreement, while each expert had an incentive to include as many features as possible from his or her areas of specialization to maximize his or her own profit. However, the client's limited budget meant that only a subset of all possible features could be included; as such, the project required negotiation among experts.

The integrative aspect was built into the bonus profit each member could receive.

Bonuses were contingent on particular combinations of features included in the final design.

Specifically, participants could gain a bonus profit if one of their features and a specific feature of others were both included in the final design. For example, the information for the structural

\$1,500 over the usual profit for the structural expert. The master suite was a feature for the structural expert, and the Jacuzzi tub was a finishing expert's. To gain a bonus, the structural expert had to convince the finishing expert to include a Jacuzzi tub. Each expert could obtain two bonus options by convincing other members to include a particular feature, resulting in a total of six unique bonus opportunities for a group.

The participants' task was to determine the set of features to be included in the final design. While they could maximize joint profit by accurately sharing their preferences, making tradeoffs, and taking the bonus options into account, individual participants might want to include the features that would maximize their own profit. However, the optimal strategy to attain the best outcome was to openly share preferences during the discussion and include all the bonus options in the final design. As a result, because the task did not include any incentive to withhold information, this investigation was a more conservative test of the effects of membership in a high-status group on strategic intragroup behavior, independent of financial incentives.

# Manipulations and measures.

Group status and status-relevance of task manipulations. The general instructions for the experimental session included the manipulations of group status and status-relevance of the task. In the *No relevance* condition, participants were told that the experimental session comprised two separate, unrelated studies. The alleged first study, which was described as an individual task surveying students' opinions about campus issues, included the group status manipulation. In this part of the study, participants, who were all undergraduate students from the same university, received ranking information about their university that had been compiled

by recruiters from globally renowned companies. The rankings indicated how these recruiters viewed students and graduates from the participants' university. This information was drawn from a real source (The New York Times, 2012), but was presented differently to induce a sense of high or low group status. Specifically, in the *High* [*Low*] *group status* condition, participants read that recruiters viewed the participants' university as a member of the top-tier [low-tier], that they ranked the participants' university higher [lower] than other schools to which the participants' school was often compared, and that students and graduates from the participants' university were very well [not well] respected by these recruiters. After reading this, participants were asked to write briefly about why the recruiters might view their university in this manner. The second study, the 3-person negotiation task described above, was introduced after participants wrote the responses, as a separate, unrelated study about group behavior.

In the *High relevance* condition, the purpose of the experimental session was described as a way to assess students' ability to work in diverse groups, which was an ability that recruiters considered to be one of the most important qualities of an ideal employee and weighed heavily when they evaluated colleges and universities. Participants then received the group status manipulation (described above). As in the *No relevance* condition, participants wrote briefly about their thoughts on the recruiters' views of their university. After this, the 3-person negotiation task was introduced as one that simulated the experiences of diverse teams in organizations, which are composed of members with different backgrounds.

I included a *Control* condition in Study 2B, in which participants were told that the experimental session comprised two separate, unrelated studies. As in the *No relevance* condition, the first study was an individual task surveying students' opinions about campus issues, and the second study was about group behavior. However, the "first" study did not include information

about how corporate recruiters viewed the participants' university. Instead, participants were asked to write briefly about their opinions about food and dining services on campus. The second task was introduced as a separate study about group behavior, as in the *No relevance* condition (see Appendix H for the full texts of the manipulations).

Concern for intragroup standing. After the manipulations, participants responded to three items designed to measure concern about their intragroup standing, adapted from the Membership subscale of CSE (Luhtanen & Crocker, 1992). Items were: "I feel concerned that other students at [University name] consider me not having much to offer to [University name]," "I feel concerned that other students at [University name] see me as an unworthy member of the community," and "I am concerned with my status among my peers" ( $\alpha = .75$ , 1 = strongly disagree, 7 = strongly agree).

*Manipulation checks.* To assess the effectiveness of group status manipulation, I asked, "How high- or low-status do you think [University name] is?" (1 = very low, 7 = very high), and "How well or poorly respected do you think students of [University name] are by recruiters?" ( $\alpha = .78, 1 = very poorly, 7 = very well$ ). As a check on the status-relevance of task manipulation, participants indicated their agreement to the statement, "Recruiters' views of students and graduates of colleges and universities depend on the ability to successfully complete this kind of task" (1 = strongly disagree, 7 = strongly agree).

*Information withholding.* The post-task questionnaire included two items that assessed the extent to which participants purposefully withheld their information during the negotiation task (Anderson & Galinsky, 2006): "I did not tell my teammates anything until they gave me information first," and "I did not want to take risks by giving my teammates too much information," ( $\alpha = .84$ , 1 = strongly disagree, 7 = strongly agree).

Information sharing (team process). The total amount of information shared among group members during the task was assessed by coding verbal interactions recorded from the task. Following recommendations for coding group interaction (Weingart, 1997), two behavioral categories were selected and coded: Provision of information about participants' preferred features and bonus options, and questions about others' preferred features and bonus options. I specifically focused on these two behavioral categories based on the assumption that if each individual participant withheld information, the negotiating group as a whole would discuss information less during the task. Unlike Study 1C, I only coded the "provision" category.

Two independent coders blind to the experimental conditions tallied the number of instances that the above-mentioned information was mentioned during the negotiation. Of the 75 recorded discussions, one coder coded the entire 75 discussions, and the other coded a subset of 25 discussions, randomly selected from each condition, to determine the inter-rater reliability. The average intra-class correlation was .92 for the 25 recordings coded by both coders. Thus, the ratings of the individual who had coded all discussions were used in the analysis (see Appendix I).

*Group outcome.* The group outcome from the task was the sum of profits that each group earned at the end of the task.

#### Results

Tables 5 and 6 present the means, standard deviations, and correlations among individual- and 3-person-team-level variables respectively. I used hierarchical linear modeling (HLM) to test predictions, because 225 participants were nested into 75 3-person groups. HLM allowed me to test individual-level effects controlling for potential higher-level effects (i.e., negotiating-group-specific effects, Bryk & Raudenbush, 1992; Kenny, Kashy, & Cook, 2006).

Group process (information sharing) and outcome (joint profit) were analyzed using the negotiating-group-level data. While all analyses were conducted primarily within the overall framework of a 2 (group status: high vs. low) × 2 (status-relevance of task: no relevance vs. high relevance) factorial design, planned contrasts that included data from the baseline control condition were also conducted to see where the effects emanated from.

**Manipulation checks.** I first assessed whether the status manipulation affected participants' perceptions of the status of their university, by conducting a 2 (status: high vs. low)  $\times$  2 (status-relevance: no relevance vs. high relevance) ANOVA. The analysis revealed a significant main effect of group status only, such that participants in the *High group status* condition perceived their university to be significantly higher in status (M = 5.93, SD = .73) than did participants in the *Low group status* condition (M = 5.32, SD = .83), F(1, 176) = 27.87, p < .001. In addition, planned contrasts including the data from the *Control* condition indicated that participants in the *High group status* condition perceived their university to be higher in status than participants in the *Control* condition (M = 5.58, SD = 1.02), t(220) = 2.31, p = .02, and that participants in the *Low group status* condition tended to perceive their university to be lower in status than those in the *Control* condition, t(220) = 1.72, p = .09.

The same ANOVA was conducted to test the effectiveness of the status-relevance of task manipulation, which revealed a significant main effect of status-relevance only, F(1, 176) = 5.51, p = .02. Specifically, participants in the *High relevance* condition expected the task to be significantly more relevant to how the recruiters evaluated their university's status (M = 5.16, SD = 1.41) than did participants in the *No relevance* condition (M = 4.60, SD = 1.75). In addition, planned contrasts including the data from the *Control* condition revealed that participants in the *High relevance* condition expected the task to be significantly more relevant to the university's

Table 5. Means, standard deviations, and correlations among individual-level variables (Study 2B)

Variable	M	SD	1	2	3
1. Group status					
2. Status-relevance of task					
3. Concerns for intragroup standing	3.75	1.64	.15*	.09	
4. Information withholding	2.81	1.52	.21**	09	.34***

*Note.* N = 225.

Table 6. Means, standard deviations, and correlations among group-level variables (Study 2B)

Variable	M	SD	1	2	3
1. Group status					_
2. Status-relevance of task					
3. Information sharing	3.48	.55	07	.18	
4. Group outcome	11.10	.11	09	.10	.67***

*Note.* N = 75. Information exchange and aggregate outcome are log-transformed.

status judgment than did participants in the *Control* condition (M = 4.76, SD = 1.26), t(220) = 2.39, p = .02, but the difference between the *No relevance* and *Control* conditions was not significant, t(220) = .64, p > .10. Thus, these results suggest that the status-relevance of task manipulation was effective.

**Preliminary analyses.** Before testing specific hypotheses, I first examined whether there was between-group variability in the dependent variable: information withholding. Results from an ANOVA with random effects provided evidence of significant between-group variance in information withholding, ICC = .34, F(59, 179) = 2.58, p < .001. I thus proceeded to use HLM analyses to test specific hypotheses, controlling for the effect of membership in a particular 3-person team.

**Concern for intragroup standing.** One of the main predictions in Study 2B was that membership in a high-status group would increase individuals' concern about maintaining their

<sup>\*</sup> *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001.

<sup>\*\*\*</sup> *p* < .001.

standing within the group. To test this hypothesis, I entered group status as the Level-2 predictor of concerns for intragroup standing, the Level-1 dependent variable. Consistent with the findings in Studies 1A and 2A, controlling for the 3-person team effect, group status positively and significantly predicted concern for maintaining standing within the group,  $\gamma = .26$ , SE = .12, p = .030.

Information withholding. Next, I tested whether concern for maintaining intragroup standing affected information withholding by using information withholding as the Level-1 dependent variable and the concern for intragroup standing as the Level-1 predictor variable, again controlling for the 3-person negotiating-team effect. The analysis revealed a positive and significant effect of concern for intragroup standing,  $\gamma = .31$ , SE = .06, p < .001.

I also probed the unconditional indirect effect of group status on information withholding via concerns about intragroup standing. The size of the unconditional indirect effect was .08, *SE* = .04, 95% *CI* (.02, .19). Thus, concern for intragroup standing mediated the effect of group status on information withholding intention.

The role of status-relevance of task. I investigated whether the relevance of task to group status moderated the indirect effect of group status on information withholding via concern for intragroup standing. I first conducted a series of cross-level models to establish that the magnitude of the association between the mediator and the dependent variable varied as a function of the moderator (Mathieu & Taylor, 2007). Specifically, in the first model, I regressed the Level-1 dependent variable (information withholding) on the Level-2 predictor variable (group status), moderator (task relevance), and their interaction term. This analysis revealed

Table 7. HLM for concern for intragroup standing and information withholding (Study 2B)

	Intragroup concern	Information	withholding
Variable	Model 1	Model 2	Model 3
Group status	.26*	.36***	.26*
Status-relevance of task		15	.28
Group status × Status-relevance of task		22*	16
Concern for intragroup standing Concern for intragroup standing × Status-relevance of task			.30*** 14*
Pseudo $R^2$ $\Delta$ Pseudo $R^2$	.02	.05	.18 .03

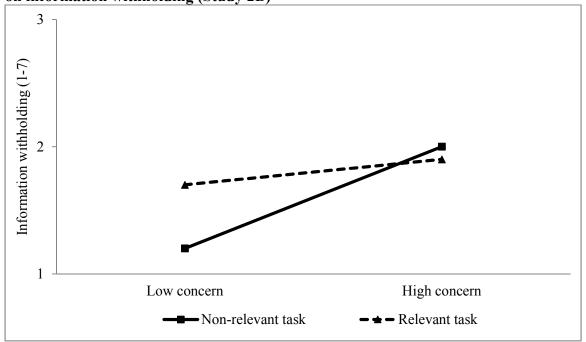
*Note.* N = 180. Entries represent unstandardized regression coefficients. For group status, low-status was coded -1 and high-status was coded 1. For status-relevance of task, no-relevance task was coded -1 and high-relevance task was coded 1.

 $\dagger p < .10; * p < .05; *** p < .001.$ 

a significant cross-level effect,  $\gamma = -.22$ , SE = .10, p = .03 (Model 2, Table 7). Next, I entered the Level-1 mediator variable (concern for intragroup standing) and its cross-level interaction term with task relevance. When the mediator and its interaction with the Level-2 moderator variables were entered, the mediator  $\times$  moderator interaction was significant,  $\gamma = -.14$ , SE = .06, p = .04 (see Model 3, Table 7, and also see Figure 8), whereas the previously significant independent variable  $\times$  moderator interaction was no longer significant,  $\gamma = -.16$ , SE = .11, p = .16. These findings indicated that the mediating effect of concern for intragroup standing on the relationship between group status and information withholding depended on status-relevance of task.

I probed the conditional indirect effect of group status on information withholding via concern for intragroup standing when the task was relevant and when it was not. Specifically, when the task did not bear any relevance to group status, the conditional indirect effect was .12 and its 95% *CI* did not include zero (.02, .28). However, as predicted, when the task was

Figure 8. Interactive effect of concern for intragroup standing and status-relevance of task on information withholding (Study 2B)

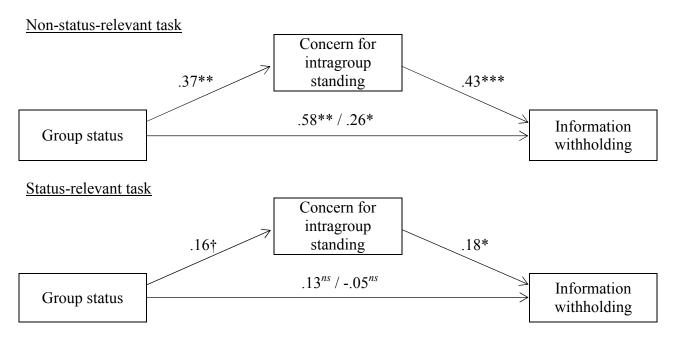


described to be relevant to group status, the conditional indirect effect was 0.5 and included zero (-.01, .17). These results suggest that membership in a high-status group increased individuals' information withholding by elevating concerns for intragroup standing, but only when the collective task involved no implication for group status maintenance (Figure 9).

Group-level analysis: Information sharing. Group-level process implication (information sharing) of group status and status-relevance of task was also explored by conducting a 2 (group status: high vs. low) × (status-relevance: no relevance vs. high relevance) ANOVA.

The analysis using the log-transformed negotiating-team-level information exchange as the dependent variable revealed a significant group status  $\times$  status-relevance interaction, F(1, 56) = 7.28, p = .009 (Figure 10). Specifically, when the task was not relevant to group status,

Figure 9. Simple paths at each level of the moderator variable (Study 2B)

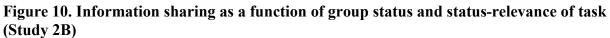


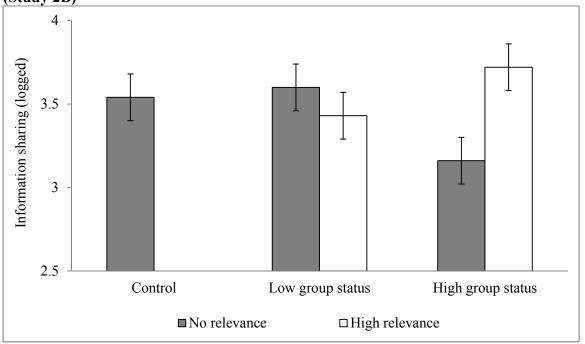
*Note.* N = 180. For group status, low-status was coded -1 and high-status is coded 1. Figure entries are standardized regression coefficients. p < .10; \* p < .05; \*\* p < .01; \*\*\* p < .001.

participants in the *High group status* condition shared information (M = 3.16, SD = .78) significantly less than did participants in the *Low group status* condition (M = 3.60, SD = .41), t(56) = 2.28, p < .05. In contrast, when the task was relevant to outsiders' judgments of group status, participants in the *High group status* condition shared information (M = 3.72, SD = .35) more than did participants in the *Low group status* condition (M = 3.43, SD = .42), t(56) = 1.89, p = .06. Planned contrasts including the data from the *Control* condition (M = 3.54, SD = .60) showed that participants in the *High group status – No relevance* condition shared information less than did participants in the *Control* condition, t(70) = 1.94, p = .06, but the amount of information shared among participants in the *High group status – High relevance* condition and in the *Control* condition did not differ significantly, t(70) = .90, p > .10.

**Group-level analysis: Group outcome.** A 2 (group status: high vs. low) × (status-relevance of task: no relevance vs. high relevance) ANOVA using the log-transformed group outcome as the dependent variable was conducted to examine whether joint outcome was affected by group status and status-relevance of task. The analysis revealed a significant group status × status-relevance interaction, F(1, 56) = 4.70, p = .034. Specifically, negotiating groups in the *High group status* condition achieved a significantly less desirable aggregate outcome (M = 11.05, SD = .10) than those in the *Low group status* condition (M = 11.13, SD = .08), t(56) = 2.02, p = .05, when the task involved no relevance to group status. In contrast, when the task was described to be relevant to how group status was determined, groups in the *High group status* condition achieved as much (M = 11.12, SD = .08) as teams in the *Low group status* condition (M = 11.09, SD = .12), t(56) = 1.05, p > .10. However, planned contrasts including the data from the *Control* condition (M = 11.10, SD = .12) did not reveal any significant difference in terms of aggregate outcomes across experimental conditions, ps > .10 (Figure 11).

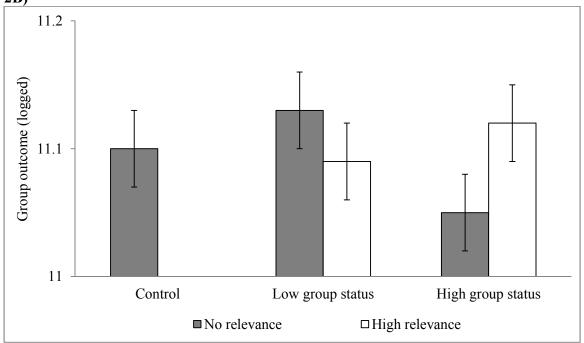
Mediation analysis. Finally, I further probed whether the interactive effect of group status and status relevance of task on aggregate outcome was mediated by information exchange. The analyses using 1,000 bias-corrected bootstrap samples revealed that the interactive effect of group status and task relevance to group status on aggregate outcome was mediated by information sharing; the indirect effect of group status × status-relevance interaction was .04, *SE* = .02, 95% *CI* (.01, .09), Figure 12. Thus, these results showed that groups in the *High group status* condition achieved significantly less joint outcome than groups in the *Low group status* condition due to lower levels of information exchange, but only when the task was not relevant to the group's status.





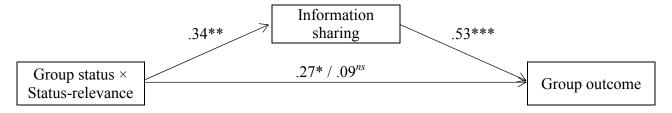
Note. Error bars represent standard errors.

Figure 11. Group outcome as a function of group status and status-relevance of task (Study 2B)



*Note*. Error bars represent standard errors.

Figure 12. Mediation analysis (Study 2B)



*Note.* Entries are standardized regression coefficients.

\* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001

### Summary

The findings of the two studies presented in this chapter support the argument that membership in a high-status group leads individuals to become attentive to the management of their relative standing within the group. This concern for intragroup standing, in turn, engenders intragroup behavior designed to prevent others from outperforming them, i.e., information withholding, which impairs the outcomes achieved by the group.

I also found that the tendency to engage in the damaging intragroup behavior was alleviated by highlighting the need for group-oriented effort: the effect of high group status on member behavior was eliminated when the relevance of task context to group status was made explicit. These results lend additional support for the psychological mechanism underlying the effect of high-status group membership on intragroup behavior: members of a high-status group may not realize that their group demands group-oriented efforts unless it is made salient by certain contextual cues. In addition, this finding suggests that even subtle contextual cues, such as the status-relevance of a task situation, appear to elicit a sense that a group's status should be protected.

Together, findings from Studies 1B through 2B illuminate the possibility that membership in a high-status group increases members' attentiveness to contextual cues, in the

attempt to ensure personally beneficial outcomes. Participants in the high group status condition adjusted their behavior as the contextual manipulations changed: the types of incentive in Studies 1B and 1C, and the status-relevance of tasks in Studies 2A and 2B. These findings thus provide potential explanations for why high group status sometimes increases group-oriented efforts (e.g., Pettit & Lount, 2010) and sometimes causes group-harming behavior (Greer, Caruso, & Jehn, 2010).

### **CHAPTER IV**

### General Discussion

# **Summary of Findings**

In this dissertation, I proposed that membership in high-status groups would lead to selforiented intragroup behavior regardless of its effects on group outcomes. The results of five studies reported in this dissertation provide support for this idea, documenting the effects of high-status group membership on self-oriented behavior in various intragroup contexts and showing evidence for the psychological mechanism underlying the effects.

The first three studies showed that membership in a high-status group increased selforiented intragroup behavior potentially harmful to the group: compared to participants in the
low group status and control conditions, participants in the high group status condition
contributed fewer resources for the group's betterment and instead took more resources for their
personal interests; displayed lower preference for a competent newcomer who might improve
group performance but at the same time might jeopardize their personal payoff; and shared less
information during group negotiation despite the harms this could bring to group outcome.
Findings also revealed that intragroup behaviors in high-status groups did not take the damaging
form when incentives were structured to align individual gains with those of the group.
Importantly, this finding suggested that intragroup behavior of members of high-status groups
was guided primarily by the pursuit of their own interests.

The next two studies delved further into identifying the psychological mechanism that drove self-oriented intragroup behavior in high-status groups, by directly measuring the extent to which individual members were concerned with their personal interests – in particular, their

concern for managing their relative intragroup standing. The results of these two studies similarly showed that membership in a high-status group increased self-oriented intragroup behavior detrimental to overall group outcome: withholding of information, because of concerns with maintaining relative intragroup position. Specifically, members of a high-status group were more likely to withhold information both reactively (i.e., after being asked for information, Study 2A) and preemptively (i.e., being reluctant to share information, Study 2B). However, this damaging pattern of intragroup behavior in high-status groups was alleviated when individuals were led to think that their group's status was a stake, suggesting that the possibility of losing their high group status might not be salient to group members unless it is made explicit.

Together, these results provide converging evidence that membership in high-status groups increases individuals' emphasis on personal interests, and that this fixation on personal gains manifests in intragroup behavior distinct from that triggered by membership in low-status groups. Below I detail theoretical and practical implications and discuss limitations of the present sets of studies as well as some directions for future research.

### **Theoretical Implications**

At the most general level, the theory and findings presented in this dissertation contribute to research on groups by shedding light on how intergroup relational characteristics, intergroup status in particular, can affect intragroup process. Groups are embedded within broader social and organizational systems and their internal processes are often shaped by external contexts, or more specifically, a group's relationships with other groups within the system (Hackman & Katz; 2010; Levine & Moreland, 2012). The relationships among groups within the system are also affected by patterns of intragroup dynamics (Dovidio, 2013; Dovidio, Gaertner, & Saguy, 2007; Levine & Moreland, 2012). Although much can be gained from integrating insights from

research in both intergroup relations and intragroup dynamics, cross-fertilization has been limited (c.f., Hogg, 2001; Hogg & Van Knippenberg, 2003). This dissertation aims to serve as a preliminary step toward bridging these literatures, by arguing that a group's position relative to other groups affects what its members desire and thus engenders distinct patterns of intragroup behavior. Findings of this dissertation suggest that the understanding of intragroup dynamics, which has long focused on identifying how various features of a group characterize intragroup behavior (e.g., group structure and composition), can benefit from considering the impact of intergroup relational and broader contextual characteristics (Hackman & Katz, 2010; Levine & Moreland, 2012). This dissertation also suggests that the intragroup process (e.g., self-oriented, group-harming intragroup behavior) can lead to changes in or persistence of intergroup relations (i.e., stability and change in intergroup status): when high-status groups do not perform well, they might fall from their prestigious position, leading to a change in hierarchy.

This dissertation enables us to obtain a better understanding of the implications of high group status for members within the group: High-status group membership can lead members to become more attentive to their standing relative to other in-group members and therefore act in a more self-oriented manner to prevent others from achieving more. This finding complements prior works that have focused primarily on identifying the implications of low group status and how members of low-status groups manage their threatened identity (Ellemers & Barreto, 2003; Huddy, 2004). The findings suggest that members of low-status groups are not the only ones who need to engage in strategies designed to manage group membership and their identity; so, too, do members of high-status groups, but in different ways and responding to different contextual cues.

This dissertation also contributes to research on status striving within groups. Consistent with the present findings, previous studies have shown that status striving by group members may impair group outcomes (Bendersky & Hays, 2012; Charness, Masclet, & Villeval, 2014; Groysberg, Polzer, & Elfenbein, 2011; Loch, Huberman, & Stout, 2000; Overbeck, Correll, & Park, 2005). This line of work also suggested that some individuals are more likely than others to engage in behaviors that enhance or maintain their status (Blader & Chen, 2011; Cassidy & Lynn, 1989; Flynn, Reagans, Amanatullah, & Ames, 2006). This dissertation introduces one potential situational characteristic that might push individuals to seek status; the status of the group to which they belong. Furthermore, this dissertation also shows that the detrimental impact of status striving on group outcomes can be mitigated by offering adequate incentives to encourage members to work for the group's benefit or by highlighting collective goals such as protecting the group's status.

Along with these broad theoretical implications, studies conducted in different intragroup contexts have specific theoretical contributions to relevant literatures. Specifically, the findings from Study 1A – that members of a high-status group were willing to forego the best interests of the group to attain higher rank and subsequent financial benefits – suggest that the detrimental effects of tournament- and rank-based incentives to collectives (Charness et al., 2014; Chen, 2003; Konrad, 2000) might be especially problematic in high-status groups and organizations. Hence, despite the potential benefits of motivating individuals to expend greater effort to get the job done better (Lazear & Rosen, 1981; Magee & Galinsky, 2008; Tannenbaum, Kavcic, Rosner, Vianello, & Wieser, 1974), such incentives might cause damaging behavior to groups and organizations, and the negative effect might be more pronounced in high-status groups and organizations in which members are attuned to their rank and relative position.

Study 1B examined the effects of high-status group membership in the context of group members having to choose a newcomer to work with, and found that members of a high-status group exhibited lower preference for a competent newcomer who might improve group performance but at the same time jeopardize their personal payoff. This finding underscores that personal concerns, such as how group members might be seen upon the entry of the newcomer, are also taken into account when incumbents formulate their preference for and evaluations of a newcomer candidate (Duguid, 2011; Owens & Sutton, 2000; Sherman & Lewis, 2002). This perspective complements prior works on selection and newcomer acceptance that have focused on incumbents' concerns for the group, such as how valuable the newcomer will be to the group and how well the newcomer might fit in with the group (Rink, Kane, Ellemers, & Van Der Vegt, 2011).

Findings from Study 2A shed light on potential behavioral strategies that group members may utilize to maintain their standing within the group. Considering that status is conferred to those who (appear) to act generously toward others and for the group (Anderson & Kilduff, 2009; Flynn et al., 2006; Willer, 2009) and that individuals are concerned with negative impressions they might convey to others by striving for status (Kim & Pettit, 2015), status striving in intragroup contexts, especially the ones intended to prevent others' outperformance such as evasively hiding information, is most likely to occur when these actions are not publicly observable. Alternatively, status striving intended to demonstrate concern for the group, such as helping others and complying with group norms and rules, is most likely to occur when such actions are publicly recognizable (Hardy & Van Vugt, 2006; Noel et al., 1995; Tyler & Blader, 2003).

The results of Studies 1C and 2B showed that high-status groups were more likely to fail to fully utilize the informational resources residing within the group because of their members' focus on achieving personal gains; therefore, they reached less desirable decision outcomes than low-status groups. I proposed that the emphasis on personal interests among members of high-status groups is in part due to their contentment with the status quo and their confidence in their ability to perform well. In this regard, the results of Studies 1C and 2B are largely consistent with the findings that perceived collective efficacy leads to suboptimal group decision outcomes (Goncalo et al., 2010; Tasa & Whyte, 2005). However, the findings of Studies 1C and 2B also identify potential triggers of collective efficacy beliefs (i.e., group status), and suggest one additional mechanism through which increased confidence might impair group outcomes, that is, by leading members to care relatively more about their own interests than about those of the group.

Studies 1C and 2B also contributes to the literature on group information processing by highlighting the hindrance to effective information exchange. Literature on information processing in groups has long assumed that individual members are motivated to seek the best possible solution when tasked to work on a problem with others, and has thus viewed the ineffective information exchange as stemming not from motivational issues but from cognitive issues, such as shared information bias and bias toward preference-consistent information (Hinsz, Tindale, & Vollrath, 1997; Stasser & Titus, 1985). Only recently have scholars begun to discuss the motivational complications behind information exchange, acknowledging that the group situation typically involves mixed and conflicting motivations (Cabrera & Cabrera, 2002; De Dreu, Nijstad, & van Knippenberg, 2008; Nijstad & De Dreu, 2012; Wittenbaum, Hollingshead, & Botero, 2004). While recent studies have investigated how monetary rewards might spur

information withholding (Steinel et al., 2010; Toma & Butera, 2009), Studies 1C and 2B provide evidence that the pursuit of monetary (Study 1C) and relational rewards such as intragroup standing (Study 2B) might also lead to ineffective information exchange.

# **Practical Implications**

Organizations provide high-status groups with material and symbolic resources with an expectation for high performance (Boynton & Fischer, 2005); accordingly, if the high-status groups do not perform well, organizations will face serious problems such as wasted valuable resources and a sense of inequity perceived by lower-status groups. This dissertation suggests that managers and organizational practitioners might benefit from being extra careful in managing high-status groups by understanding how members of high-status groups think and behave, rather than simply expecting them to generate good results. Members of high-status groups tend to prioritize self-interests over group interests, which may result in dysfunctional group process such as ineffective information exchange. Thus, a key to promoting effective intragroup process in high-status groups would be to determine how to appeal to members' personal interests to work for the group.

To this end, this dissertation suggests three potential ways for managing high-status groups effectively. First, as shown in Studies 1B and 1C, one potential method is to establish group-based incentive systems, structuring outcomes that ensure that the pursuit of group interest is aligned with individual rewards. Second, based on findings from Studies 2A and 2B, it may also be advisable to make group members aware of the ramifications of their behavior on the group, particularly on the status of the group. Once members understand that their group's high-status might be renegotiated and thus subject to change, they will work for the benefit of the group, or at least they will not engage in group-harming behavior. Finally, managers might

consider working to address members' contentment with the status quo and their overconfidence. For example, leading members to engage in upward intergroup comparisons, as documented across all five studies in this dissertation, might alleviate dysfunctional intragroup process.

### **Limitations and Future Directions**

A few limitations should be acknowledged, all of which set the stage for future research.

These limitations include those that are conceptual in nature, concerning the boundary conditions of the findings of this dissertation, as well as methodological ones.

The main objective of this dissertation was to document the effects of high-status group membership on members' goals and concerns and the subsequent member behavior within the group, and to demonstrate that they are not mere opposites of the effects of low-status group membership. Hence, I did not incorporate some psychological, social and relational, and socio-structural characteristics that may affect the proposed and observed effects in this dissertation.

First, the primary psychological impact of high-status group membership I proposed in this dissertation is that it increases members' desires to maintain their relative standing and status within the group. Members of high-status groups engage in self-oriented intragroup behavior designed to avoid unfavorable intragroup comparisons to ensure the security of their memberships in valued and respected high-status groups. Thus, the effects of high-status group membership observed in this dissertation may be weaker for members who have already established their position within the group and are therefore less concerned with their standing within the group. Similarly, these effects may be stronger for members who feel marginalized and in the periphery of the valued group. Preliminary evidence from data I collected from a survey of management scholars in U.S. business schools shows some support for this speculation. Specifically, for full professors who have already secured their standing within their departments,

the effect of the status of the department is weaker than its effect for associate and assistant professors. Existing evidence also shows that marginal members of high-status groups are concerned particularly with improving their standing within the group, and are therefore more likely to engage in strategic intragroup behavior to gain acceptance (Branscombe et al., 2002; Noel et al., 1995). Thus, future research might benefit from conducting a systematic investigation of how high group status interacts with the extent to which members feel secure about their standing within the group to determine the ways in which they behave within the group.

All five studies presented in this dissertation considered a single dimension that group members might use to compare themselves to other in-group members: the amount of financial payoff they can earn relative to others (Studies 1A through 1C) and their worth to the group relative to others (Studies 2A and 2B). This may be an oversimplified representation of the reality, in which interpersonal and intragroup comparisons are made from multiple dimensions. It is possible that the presence of multiple comparison dimensions within the group may attenuate self-oriented and group-harming intragroup behavior in high-status groups, considering that individuals seek superiority or avoid inferiority, especially in personally relevant domains (Garcia, Tor, & Schiff, 2013; Tesser, 1988). Thus, the effects of high-status group membership on eliciting damaging intragroup behavior might become weakened when there exist multiple bases on which individuals can claim superiority within groups (c.f., Groysberg et al., 2011).

Finally, I did not explicitly theorize the role of socio-structural factors surrounding status difference among groups: stability and legitimacy of status differences and permeability of group boundaries, all of which have been shown to be critical in understanding how members of low-status groups behave both in intra- and intergroup contexts (Ellemers, 1993; Tajfel & Turner,

1979). I did not incorporate these factors to model a more general representation of reality: status differences tend to remain stable (Brown, 1991; Murdock, 1949) and tend to be perceived as legitimate (Jost & Banaji, 1994), and boundaries between high- and low-status groups are relatively impermeable (Branscombe et al., 2002; Taylor & McKirnan, 1984). Future research might explore how these factors influence the effects of high group status on members' concerns and behaviors.

This dissertation focuses on the possibility that membership in high-status groups engenders self-oriented, potentially group-harming intragroup behavior designed to ensure members' standing within the groups. However, the emphasis on damaging intragroup behavior is not to argue that members of high-status groups always engage in other- and group-harming behaviors. Rather, increased concern for intragroup standing in high-status groups may also lead to group-serving behavior such as rule compliance (Tyler & Blader, 2003), norm conformity (Jetten, Hornsey, & Adarves-Yorno, 2006), and displays of self-sacrifice and group-motivation (Hardy & Van Vugt, 2006; Zahavi & Zahavi, 1997). Underlying these intragroup behaviors, however, might be self-oriented, strategic concerns, rather than genuine concern for the group's well-being. Thus, future research should consider investigating a broader array of intragroup behaviors, including both group-serving and group-harming ones, and examine how these actions are guided by personal concerns. For example, if intragroup behavior undertaken by members of high-status groups is guided by how their behavior will be received by other ingroup members, then the occurrence of behavior that is motivated by collective interests but potentially harmful to individuals (e.g., loyal deviance or whistle-blowing, or intentional dissent from group norms to correct the group's misdeed, Miceli & Near, 1992; Packer, 2008; Waytz, Dungan, & Young, 2013), should be rarer in high-status than in low-status groups.

As with any empirical research, there are methodological limitations to inferring generalizability of the findings reported in this dissertation. First, all five studies were conducted in laboratory settings, and therefore, additional tests through field investigations of the effects of high group status are needed to ensure the external validity of the theory and findings in this dissertation. To this end, preliminary evidence has been obtained from survey data collected from management faculty in U.S. business schools, showing that high group status is positively and significantly associated with the extent to which faculty members are concerned with their relative standing within the department. Second, regarding the implications for group effectiveness, I examined only the outcome consequences of group status for groups working on decision-making tasks. Although the use of group decision-making tasks offers some clear advantages, generalizability to other tasks cannot be guaranteed. Thus, additional research using different tasks will be useful (Steiner, 1972; Thompson, 1967) to gain a more comprehensive understanding of the effects of group status on group effectiveness. Third, the studies in this dissertation did not address directly the implications for group status resulting from emergent damaging intragroup behavior and impaired performance in high-status groups. Although low performance might lead to loss of status, given the stickiness of status (Merton, 1968; Sauder, Lynn, & Podolny, 2012), the low performance may not be sufficient to cause changes in status difference among groups. Thus, future work should expand the time horizon and examine whether changes in group status can be traced back to individual members' self-oriented intragroup behavior.

### Conclusion

Theory and practice both emphasize that leading group members to view their group memberships positively is a key factor in promoting more effective group functioning (Ashforth

& Mael, 1989; Tyler & Blader, 2003). Group status is one characteristic that often leads members to perceive their group in a more positive light, and the existing evidence indeed suggests that group status is associated with membership-based esteem as well as group identification, two important predictors of group-oriented behaviors. However, valued group membership, such as one in a high-status group, might also come with an increased focus on personal interests, particularly in maintaining intragroup standing that can potentially result in group-harming behavior. In this way, high-status groups might undermine their status from within the group. Although the status-protection efforts of high-status groups are typically directed toward lower-status out-groups (Lorenzo-Cioldi, 1998; Sidanius & Pratto, 1999), status-protection can be and should be done from within the group first.

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# APPENDIX A Materials Used in Part 1, Studies 1A and 1C

In this part of the study, you will be asked to answer a few questions to assess your personality profile. Your answers will be scored by the experimenter, who will assign you to a team based on your answers.

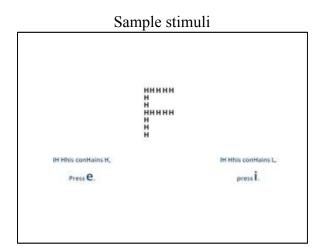
Please indicate the extent to which you think the following statements reflect who you are as a person. ( $1 = \text{extremely inaccurate} \sim 7 = \text{extremely accurate}$ )

- I am a brainiac.
- I am a very organized person.
- I prefer unstructured environments.
- I keep my thoughts to myself.
- I am not easily bothered by things.
- I seek out the patterns of the universe.
- I follow a schedule.
- I am messy.
- I get stressed out easily.
- I am unplanned.

On the following screen, you will see a series of stimuli. Your task is to indicate whether the stimuli appearing on screen contain either the letter L or the letter H. Go as fast as you can while making as few mistakes as possible. You will practice before you begin the actual test.

### Instruction

- Keep your index fingers on the "e" and "i" keys to enable rapid response.
- The test gives no results if you go slow Please try to go as fast as possible.
- Expect to make a few mistakes because of going fast. That's OK.



# **APPENDIX B Group Status Manipulation, Studies 1A and 1C**

### **Team Introduction**

All of you here today will work as a team. Your team was created based on the results of the online survey you completed. We have tried to create teams where you will be working with other participants with similar personality types to yours.

Your team was created based on our analysis of your and your teammates' responses to the online part of the study. Your responses indicated that you fall under the RED PERSONALITY TYPE. Your teammates' responses also indicated that they fall under the RED PERSONALITY TYPE. Thus, your team is comprised of members all having the RED PERSONALITY TYPE.

### **Personality Feedback**

A group of personality psychologists developed the typology of RED and BLUE personalities, and have found that these personality types are good at predicting the ways in which people see the environment, interact and work with others, and approach and solve problems. Individuals with the RED personality tend to:

### **Control condition**

- Have a need for other people to like and admire them, and yet be critical of themselves
- Be disciplined and self-controlled on the outside, while be worrisome and insecure on the inside
- At times be extroverted, affable, and sociable, while at other times be introverted, wary, and reserved.

### High group status condition

- See connections between various stimuli and different kinds of information
- Excel at solving difficult dilemmas
- Find creative solutions that others usually do not see
- Have hard time keeping their emotions under control
- Be affected by stressful situations

# Low group status condition

- Prefer focusing on one thing at a time to having to consider multiple issues simultaneously
- Be detail-oriented, often missing a larger picture while focusing on minor points
- Giving up looking for solutions when faced with difficult dilemmas
- Excel at putting their emotions under control
- Stay calm under stressful situations

### **Task Introduction**

### **Control condition**

In this experiment, your team will work together on the organizational problem-solving task, which simulates the experience of teams in organizations.

### High group status condition

Creative problem-solving skills and ability to integrate different kinds of information are key determinants of the success in this sort of task, as organizational teams are often expected and required to provide creative solutions to various organizational problems by gathering and integrating diverse sets of information. Thus, prior research has found that teams that have more RED personality members tend to show SUPERIOR PERFORMANCE on this kind of task than groups that have more BLUE personality members, because individuals with RED personality are stronger at seeing connections between different kinds of information.

## Low group status condition

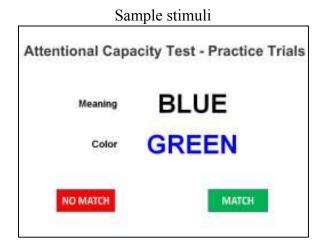
Creative problem-solving skills and ability to integrate different kinds of information are key determinants of the success in this sort of task, as organizational teams are often expected and required to provide creative solutions to various organizational problems by gathering and integrating diverse sets of information. Thus, prior research has found that teams that have more RED personality members tend to PERFORM POORLY compared to groups that have more BLUE personality members, because individuals with RED personality are weaker at finding connections among different types of information.

# APPENDIX C Materials Used in Part 1, Study 1B

In this part of the study, you will take a test of your attentional flexibility.

People with high attentional capacity have been shown to be good at working on dynamic, simultaneous collaborative tasks. Companies and organizations widely use this test to assess how mentally flexible their employees are. This test requires you to manage your attention, inhibit or stop one response in order to say or do something else.

Please indicate whether the color of the text in the bottom matches the meaning of the word on the top. Please click MATCH if they match. Otherwise, click NO MATCH.



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# APPENDIX D Teammate Introductions, Study 1B

In this team task, you will work with three other participants in your team. To maintain each team member's anonymity, you have been assigned names, such as Member A, Member B, etc. You are MEMBER C.

Below are your teammates' self-introductions and some randomly chosen answers from their personality questionnaire.

### Member A

- "I am a graduate student at CMU.. right now I am hungry and would like to go to eat."
- Has rated 7 on the question "I see myself as EXTRAVERTED and ENTHUSIASTIC."
- Has rated 7 on the question "I see myself as DEPENDABLE and SELF-DISCIPLINED."

### Member B

- "I like baseball. I love traveling and reading. I also love watching action flicks."
- Has chosen "YES, ALWAYS" to the question "Do you keep a daily schedule or calendar of your plans?"
- Has chosen "NEVER" to the question "How often are you late for appointments?"

### Member D

- "I am from Atlanta, GA. I get along well with others. I am a hard worker.
- Has chosen "SOMETIMES" to the question "How often do you worry about future events?"
- Has rated 1 on the question "I see myself as DISORGANIZED and CARELESS."

# APPENDIX E Introductions of Newcomer Candidates, Study 1B

The information you will see in the following screen is randomly selected from the answers that the two new participants have provided. Your teammates may or may not have the same information about these two new participants.

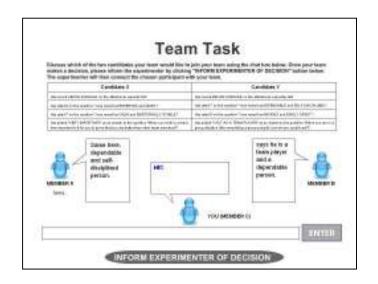
### Candidate X

- Has scored ABOVE AVERAGE on the attentional capacity test
- Has rated 6 on the question "I see myself as RESERVED and QUIET."
- Has rated 7 on the question "I see myself as CALM and EMOTIONALLY STABLE."
- Has chosen "VERY IMPORTANT" as an answer to the question "When you work in a team, how important is it for you to prove that you are better than other members?"

# Candidate Y

- Has scored BELOW AVERAGE on the attentional capacity test
- Has rated 7 on the question "I see myself as DEPENDABLE and SELF-DISCIPLINED."
- Has rated 6 on the question "I see myself as ANXIOUS and EASILY UPSET."
- Has picked "I ACT AS A TEAM PLAYER" as an answer to the question "When you are in a group situation (like completing a group project), how do you usually act?"

# APPENDIX F Look of Online Chatroom and Preprogrammed Chat Content, Study 1B



Member A: Hi there. Are we online yet? Anyone there?

Member B: hello, yesYup.

Member A: Great. what are we supposed to do? choose a new member?

Member B: hmmm.. i guess so.

Member B: I've got some information about candidate X and candidate Y.

Member B: but the instruction says our information may not be the same.

Member B: Mine says Candidate Y is extraverted and enthusiastic person.

Member A: It's the same for me toosame here.

Member B: It also says he is a team player and a dependable person.

Member A: Same here. He says he is a dependable and self-disciplined person.

Member A: hmmm... but why should we believe these statemetrs anyway?

Member B: hmm.. do we have a choice?

Member B: there's nothingwell, we don't have anything else to go on.

Member A: Candidate y seems like a nice guy and a team player anyway.

Member B: OK, bBut what do you think about candidate x?

Member A: they say he (maybe she) is a quiet person?

Member B: yes, but he's self-disciplined too, and says that he tries hard to be the best.

Member B: so who should be our new memberwhat do you guys think? X or Y?

Member A: i dont know..not syre

Member A: i guess, at least with this information, y seems to be the better choice.

Member A: what do you guys think?

Member B: I guess i'd like torather have a friendlier person as a new member, which is Y

Member A: alright

Member B: then..

Member B: click on the button below?

Member A: guess so...

Member A: Let's see what happens

# APPENDIX G Coding Manual, Study 1C

Category	Subcategory	Example
Information	Providing information about	For temperature, I like E.
Provision	preferences within a single issue	
	Providing information about the	I can't go any lower than that.
	bottom-line	
	Providing information about	To me I think the most important
	priorities among issues	issue is temperature
Information	Asking questions about preferences	What is your preference for
Seeking		temperature?
	Asking questions about priorities	What is your most important
		issue?
	Asking questions about the bottom	What is the coldest temperature
	line	you can accept?

# APPENDIX H Group Status and Status-Relevance Manipulations, Study 2B

### **No Relevance conditions**

This session is actually comprised of two separate studies which have been paired for convenience. The first part concerns Carnegie Mellon students' attitudes towards the school and their campus lives. In the second part, you will do a team exercise with other participants.

In this part of the study, the researchers are interested in assessing Carnegie Mellon undergraduate students' understanding of their strengths and/or weaknesses. Ultimately, our goal is to develop potential educational and professional development programs for students at Carnegie Mellon to improve weaknesses and further develop their strengths.

### High group status condition

According to new rankings of colleges and universities based on recruiter ratings, published in the New York Times and the International Herald Tribune, Carnegie Mellon University is ranked as a member of the TOP-TIER, which is the same tier as the Ivy League schools and other top universities in the U.S., such as Stanford and M.I.T. Carnegie Mellon is ranked higher than one of the Ivy League schools (Cornell University), and other universities to which it is often compared (the so called New Ivies), including the University of Michigan, Boston College, and Emory University.

The new ranking of Carnegie Mellon suggests that students and graduates of Carnegie Mellon are highly respected by recruiters. Please write briefly about why you think this is the case. Your response will help us assess what needs to be improved and/or further developed.

### Low group status condition

According to new rankings of colleges and universities based on recruiter ratings, published in the *New York Times* and the *International Herald Tribune*, Carnegie Mellon University is ranked as a member of the *LOW-TIER*, which is the tier lower than the Ivy League schools and other top universities in the U.S., such as Stanford and M.I.T. Carnegie Mellon is also ranked lower than other universities to which it is often compared to (the so called New Ivies), including New York University, UCLA, and University of Southern California.

The new ranking of Carnegie Mellon suggests that students and graduates of Carnegie Mellon are *NOT* well respected by recruiters. Please write briefly about why you think this is the case. Your response will help us assess what needs to be improved and/or further developed.

### **High Relevance conditions**

In the current study, the researchers aim to assess how undergraduate students at Carnegie Mellon University work in diverse groups. Ultimately, our goal is to develop potential educational and professional development programs for students at Carnegie Mellon to improve and further develop their ability to work with others in groups.

### High group status condition

According to new rankings of colleges and universities based on recruiter ratings, published in the New York Times and the International Herald Tribune, Carnegie Mellon University is ranked as a member of the TOP-TIER, which is the same tier as the Ivy League schools and other top universities in the U.S., such as Stanford and M.I.T. Carnegie Mellon is ranked higher than one of the Ivy League schools (Cornell University), and other universities to which it is often compared (the so called New Ivies), including the University of Michigan, Boston College, and Emory University.

The new ranking of Carnegie Mellon suggests that students and graduates of Carnegie Mellon are highly respected by recruiters because they are adept at working with people from different backgrounds. Please write briefly about why you think this is the case. Your response will help us assess what needs to be improved and/or further developed.

# Low group status condition

According to new rankings of colleges and universities based on recruiter ratings, published in the New York Times and the International Herald Tribune, Carnegie Mellon University is ranked as a member of the LOW-TIER, which is the tier lower than the Ivy League schools and other top universities in the U.S., such as Stanford and M.I.T. Carnegie Mellon is also ranked lower than other universities to which it is often compared to (the so called New Ivies), including New York University, UCLA, and University of Southern California.

The new ranking of Carnegie Mellon suggests that students and graduates of Carnegie Mellon are NOT well respected by recruiters because they are LESS adept at working with people from different backgrounds. Please write briefly about why you think this is the case. Your response will help us assess what needs to be improved and/or further developed.

### **Control condition**

This session is actually comprised of two separate studies which have been paired for convenience. The first part concerns Carnegie Mellon students' opinions about food and dining services on campus. In the second part, you will do a team exercise with other participants.

In this part of the study, the researchers are interested in assessing Carnegie Mellon undergraduate students' opinions about food and dining services on campus, and their opinions about the school.

Please write briefly about how you think about the food and dining services on campus. Your response will help us design a study assessing CMU students' attitudes towards campus issues.

# APPENDIX I Coding Manual, Study 2B

Category	Subcategory	Example
Information	Providing information about	I think the client would like to
Provision	preferences	have a Jacuzzi tub.
	Providing information about bonus	It says I build a family room on a
	options	sloping lot, I receive an additional
		profit.