Group Cohesiveness and Social Loafing: Effects of a Social Interaction Manipulation on Individual Motivation Within Groups

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Previous research has shown that individuals often engage in social loafing, exerting less effort on collective rather than individual tasks. However, nearly all of the prior research has examined noncohesive groups. An experiment was designed to test the hypothesis that social loafing can be reduced or eliminated among cohesive groups. Fifty-nine dyads discussed a controversial issue on which they agreed strongly (high cohesiveness), disagreed strongly (low cohesiveness), or disagreed mildly (control), then worked either coactively or collectively on an idea-generation task. Members of low-cohesiveness and control groups engaged in social loafing, whereas members of high-cohesiveness groups worked just as hard collectively as coactively. These findings are discussed in relation to S. J. Karau and K. D. Williams's (1993) Collective Effort Model of individual motivation in groups.

One of the major promises of groups is the potential to energize and motivate individual members; however, this potential is not always realized. In fact, a large and growing body of research has demonstrated that individuals often work less hard on collective tasks than they do on individual tasks, a phenomenon known as *social loafing.*

Formally, social loafing refers to the tendency for individuals to exert less effort when working collectively (such that individual inputs are combined into a single group product) than when working individually or coactively (such that individuals work in the actual or implied presence of others, but inputs are not combined). Social loafing has been established as a robust effect that generalizes across tasks, as well as most populations (for a review, see Karau & Williams, 1993). In addition, a number of factors have been found to moderate the effect. For example, social loafing can be reduced or

eliminated by making individual inputs identifiable (Williams, Harkins, & Latané, 1981), enhancing personal involvement with the task (Brickner, Harkins, & Ostrom, 1986), providing individual or group comparison standards (Harkins & Szymanski, 1988, 1989), or increasing the uniqueness of individual contributions (Harkins & Petty, 1982).

However, almost all of the prior research on social loafing has examined unacquainted aggregates of strangers, limiting the potential generalizability of the research. The present research was designed to fill this gap by manipulating group cohesiveness and examining its effects on individuals' efforts in both coactive and collective settings. Although cohesiveness is a complex and possibly multidimensional construct (e.g., Zaccaro & McCoy, 1988) that has been defined and operationalized in a variety of ways (Evans & Jarvis, 1980), most treatments have emphasized members' attraction to the group or to its members (Hogg, 1992). Thus, we defined cohesiveness as the degree to which group membership was desired and valued by individuals and manipulated cohesiveness by having pairs of previously unacquainted participants engage in interactions that were designed to have a significant influence on their attraction to their coworker.

We framed our hypotheses in terms of the Collective Effort Model (CEM; Karau & Williams, 1993). The CEM represents an expansion of individual-level expectancy-value

theories of work motivation (e.g., Vroom, 1964) to the more complex realm of collective tasks, and an integration of an expectancy-value framework with key elements of social identity and self-evaluation theories. The CEM suggests that individuals will only be willing to work hard on a collective task to the degree that they expect their efforts to be useful in leading to outcomes that they personally value. Thus, individuals are not likely to work hard when they view the outcomes of the collective situation or the group's performance as unimportant or meaningless. In addition, even when the relevant outcomes are highly valued, individuals are not likely to work hard unless they expect their efforts to lead to performance that will be useful in obtaining those outcomes. Collective tasks also introduce a number of unique barriers to individual motivation, because individual outcomes are affected by factors beyond individual performance—such as the performance of other group members and the possible diffusion of group outcomes across members.

The CEM also suggests that individuals are likely to be motivated by collective settings that provide the potential for self-evaluation (cf. Breckler & Greenwald, 1986; Goethals & Darley, 1987; Harkins & Szymanski, 1989). Cohesive groups or groups with which individuals strongly identify are likely to enhance concern with self-evaluation, especially as related to group activities and outcomes. Indeed, theory and research on social identity and on social comparison processes in groups has shown that individuals often seek to maintain and enhance their self-evaluation by identifying with the successes and positive attributes of groups and social categories to which they belong (Abrams & Hogg, 1990; Goethals & Darley, 1987). Thus, the CEM suggests that group cohesiveness should reduce or eliminate social loafing when individual inputs contribute to favorable group outcomes and when comparison with other groups is available.

Almost no research has examined group cohesiveness and social loafing. In the handful of studies that are available, cohesiveness has been examined only indirectly, by comparing groups that differed in their level of prior acquaintance. These studies have also produced mixed results. First, Shirakashi (1985) had Japanese students shout and clap in groups comprising either strangers or members of one's own sports club. Participants in both the high- and low-cohesiveness conditions worked equally hard collectively and coactively (consistent, perhaps, with a cultural emphasis on collectivism), thereby leaving the cohesiveness question unanswered. Second, Hardy and Latané (1988) had high school cheerleaders perform a shouting task with another cheerleader from the same or from a different squad. Although all participants tended to reduce their collective efforts and there was no significant interaction between group cohesiveness and individual versus group work condition, the social loafing effect only reached significance in the low-cohesiveness condition—providing initial, tentative support for the notion that group cohesiveness might at least reduce the absolute magnitude of social loafing. Third, a study of social ostracism by Williams and Sommer (1997) found that individuals did not engage in social loafing when they were included, rather than excluded, from participation in a group activity before working on the task. However, participants also did not engage in social loafing in a control condition that did not involve the group activity, once again leaving the question of whether cohesiveness can eliminate social loafing unanswered. It is interesting that when individuals were ostracized by the group, women actually worked harder collectively than coactively (presumably to regain their sense of belonging), whereas men worked equally hard in both conditions—providing indirect support for the general notion that one's relationship with the group has motivational implications.

Finally, the most direct evidence on group cohesiveness and social loafing comes from two studies by Karau and Williams (1997), who examined groups that differed in friendship status. In Experiment 1, secretarial students typed both individually and collectively in groups comprising either friends or strangers. A significant interaction emerged such that participants tended to type faster collectively than individually when working with friends, but slower when working with strangers, although neither simple effect was significant. In Experiment 2, group cohesiveness moderated social loafing on a brainstorming task such that individuals loafed when working with strangers but worked just as hard collectively as coactively when working with close friends.

Taken as a whole, the results of prior research

provide initial, tentative support for the hypothesis that social loafing can be reduced or eliminated in cohesive groups. However, these results are certainly not definitive. All of the prior research (with the exception of Williams and Sommer, 1997, which addressed ostracism rather than cohesiveness) has operationalized cohesiveness in terms of the degree of prior acquaintance among group members. Although friends and strangers (or, similarly, teammates and competitors) likely differ in their levels of cohesiveness, the precise nature of those differences is unclear, and such groups also differ in a wide variety of attributes other than cohesiveness (Duck, 1994; Hogg, 1992). Moreover, most of these prior studies did not manipulate cohesion, but instead studied groups that differed in their existing levels of familiarity, leaving open the possibility that preexisting individual or group differences in factors other than cohesiveness produced the observed effects. In the present research, we took the vital step of manipulating group cohesiveness in a manner that was not confounded with the diversity of constructs that may accompany friendship status and degree of prior acquaintance. Specifically, we manipulated group cohesiveness directly by asking unacquainted dyads to discuss an issue on which they either strongly agreed (high cohesiveness), strongly disagreed (low cohesiveness), or mildly disagreed (control). After the discussion task, participants worked either coactively or collectively with their partner on an idea-generation task. We predicted that group cohesiveness would reduce or eliminate social loafing.

Method

Participants and Design

Participants were 118 undergraduate psychology students at Virginia Commonwealth University (94 women and 24 men). Dyads were randomly assigned to one cell of a 3 (cohesiveness: high, low, or control) × 2 (work condition: coactive or collective) between-groups factorial design. Group composition (mixed-sex groups or groups of women) was counterbalanced across cells (men were not assigned to same-sex groups due to insufficient sample size).

Procedure

On arrival, participants were told that they would be participating in two separate experiments examining different performance tasks: a group discussion task and an idea-generation task. First, participants were asked to complete a social issues questionnaire that used Likert-type scales to assess (a) agreement or disagreement with each of 30 controversial issues ranging from abortion to gun control, and (b) the personal importance ascribed to each issue. When completed, the experimenter took the questionnaires into another room, presumably to score them, and selected an issue for discussion. An issue was selected on which participants either (a) agreed strongly and felt was very important (high cohesiveness), (b) disagreed strongly and felt was very important (low cohesiveness), or (c) disagreed mildly and felt was moderate to low in importance (control).[1] Pretesting revealed that mere discussion of issues was not enough to create strong differences in group cohesiveness, so a manipulation with multiple operations was developed. Thus, the experimenter also provided false similarity feedback and framed the discussion as either cooperative or competitive. Participants were told that they had agreed on either 7 issues (low cohesiveness), 15 issues (control), or 23 issues (high cohesiveness). The experimenter then

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[1] For each of the 30 issues on the social issues questionnaire, the agreement scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*), and the importance scale ranged from 1 (*very unimportant*) to 7 (*very important*). The experimenter selected for discussion the single issue showing the highest possible match, given the group members' responses, with the optimal levels of agreement and importance desired for the appropriate cohesiveness condition. Thus, the selected item was always rated greater than 4 on importance by both group members in the high- and low-cohesiveness conditions, whereas it was always rated less than 5 on importance by both group members in the control condition. In the high-cohesiveness condition, group members' agreement ratings were always at the same end of the scale, were always within two points (i.e., the issue was rated either between 1 and 3 by each group member, or between 5 and 7 by each group member), and were within one point for 17 of 20 groups. In the low-cohesiveness condition, group members' agreement ratings were always rated at least 4 points apart (e.g., if one participant's rating was 2, the other participant's rating had to be either 6 or 7), and were rated at least 5 points apart for 16 of 19 groups. In the control condition, agreement ratings always ranged between 2 and 6 for each participant, and were always rated either 2 or 3 points apart.

provided discussion instructions, asked participants to begin, and left the room. The discussion instructions stressed either (a) trying to work with one's "partner" to devise strategies for convincing outsiders that their shared view was correct (high cohesiveness), (b) trying to convert one's opponent to the correct view (low cohesiveness), or (c) discussing some of the pros and cons of each side of the issue (control). After the discussion, participants filled out a brief questionnaire including manipulation checks for cohesiveness.

Participants were then thanked for their help with the first study and the idea-generation task was described. A divider was placed between participants that prevented them from seeing each other. Participants were asked to generate as many uses as possible for an object (a knife) in 12 min. They were told that a recent theory suggested that rapid thinking was highly correlated with intelligence, and that it was therefore important that they generate as many uses as possible. They were also told that their scores would be compared with those of either individuals (coactive condition) or groups (collective condition) that had participated in similar studies at other universities. Each use was written on a separate slip of paper and inserted into a box between the participants that was either separated by a divider (coactive) or was not (collective). During the task, participants listened to music on headphones to prevent monitoring of work rates. After the idea-generation task, participants were asked to fill out a brief questionnaire, then were debriefed and dismissed.

Results

We used the group as the unit of analysis for all analyses. Where appropriate, we used a priori orthogonal contrasts to make planned comparisons (Kirk, 1982). Neither gender nor group composition had any significant effects, and both factors were excluded from final analyses.

Manipulation Checks

After the discussion, participants were asked how much they liked their partner, how willing they would be to work with their partner again in the future, and how similar they thought they were to their partner. These three items were

averaged to produce a cohesiveness index ($\alpha = .85$). A main effect of cohesiveness was found, $F(2, 53) = 11.73, p < .001$, such that members of high-cohesiveness groups scored higher on the index ($M = 5.39$ on a 7-point scale) than did members of control groups ($M = 4.83$), $F(1, 53) = 7.41, p < .01$, who in turn scored higher than did members of low-cohesiveness groups ($M = 4.09$), $F(1, 53) = 4.36, p < .05$.

After the idea-generation task, participants were asked to what extent they thought the experimenter would be able to tell how well they had performed individually. Participants in the coactive condition rated the likelihood that the experimenter would be able to monitor their individual scores as higher ($M = 80.67$) than did participants in the collective condition ($M = 45.92$), $F(1, 53) = 40.33, p < .0001$.

Performance Data

A 3 × 2 between-groups analysis of variance was conducted on the performance data. A main effect of work condition indicated that there was a significant social loafing effect, $F(1, 53) = 8.88, p < .01$. Participants worked harder coactively ($M = 31.05$) than collectively ($M = 24.15$).

More important, the predicted two-way interaction was significant, $F(2, 53) = 3.78, p < .03$ (cell means and standard deviations are provided in Table 1). Significant social loafing effects were found in both the low-cohesiveness

Table 1

Uses Generated for a Knife as a Function of Group Cohesiveness and Work Condition

Group cohesiveness	Work condition	
	Coactive	Collective
Low		
M	32.10	20.72
SD	7.33	6.37
n	10	9
Control		
M	34.15	22.40
SD	15.14	6.83
n	10	10
High		
M	26.44	28.55
SD	8.49	8.49
n	9	11

Note. n is based on the number of dyads in each condition.

condition, $F(1, 53) = 7.56, p < .01$, and the control condition, $F(1, 53) = 8.50, p < .01$, such that participants worked harder coactively than collectively. In contrast, members of high-cohesiveness groups worked equally hard collectively and coactively ($F < 1$).

Discussion

This experiment provides strong support for the hypothesis that group cohesiveness can reduce or eliminate social loafing when individuals have the opportunity to make useful contributions that can lead to favorable and valued group outcomes. Given that the vast majority of prior studies on social loafing have examined noncohesive groups, these results raise important questions as to the generality of social loafing. Specifically, the present research raises the intriguing possibility that factors that serve to increase intragroup attraction, or that otherwise serve to activate individuals' concern for collective outcomes and the reflection those outcomes have on the self, may be helpful in reducing or overcoming social loafing.

However, cohesiveness alone may not be sufficient for maintaining high levels of motivation. As the CEM suggests, cohesiveness is most likely to have motivational implications for individual group members when their efforts are likely to be useful in leading to group outcomes that have implications for their own self-evaluation, or for other consequences that they personally value. Even though these individual outcomes are indirect, as they are associated with collective rather than individual performance, they still appear to have significant effects on motivation. Yet on tasks that are not valued or have little implication for self-evaluation—as well as in situations in which individual inputs have little or no impact on group outcomes or in which concern for comparison with other groups is not present—motivation losses might still occur even in cohesive groups.

Prior research on group cohesiveness and social loafing has either measured existing cohesiveness levels among intact groups, inferred cohesiveness solely from participants' friendship or teammate status, or used manipulations based solely on the existing relationship between group members. Because the current study actually manipulated cohesiveness, ran-

domly assigned participants to conditions, and held prior acquaintance levels constant across conditions, it is also the first to demonstrate that social loafing can be moderated by group cohesiveness, distinct from any of a number of other attributes that may covary with friendship or teammate status. However, it should be recognized that our cohesiveness manipulation invoked multiple operations, thereby preventing us from determining which specific operation was most crucial to our results. Because cohesiveness is a complex construct, the next step may be to determine which specific elements of cohesiveness have motivating properties for individuals within groups and when each element is operative. The manipulation used in the present study implicates interpersonal comfort with other group members and perceived similarity most directly. Given that similarity is a potent determinant of attraction (e.g., Byrne, 1997), our manipulation taps directly into the attraction-to-group component of cohesion, but may affect other components less directly.

The present study is also somewhat unique in its examination of low-cohesiveness conditions. Prior research has documented a variety of ways to reduce or eliminate social loafing, but has not studied ways to increase it, even though factors that exacerbate loafing may have equally important practical consequences (Karau & Williams, 1995). Our results showed that members of low-cohesiveness groups engaged in social loafing, producing a pattern of results nearly identical to that found for members of control groups. Thus, the relative decrease in cohesiveness produced by engaging in a competitively framed interaction with a dissimilar individual was not enough to significantly enhance the magnitude of social loafing. Yet if the manipulation was strengthened or redesigned to produce very high levels of dislike and discomfort among coworkers, we might expect social loafing to actually increase in magnitude. Moreover, each factor that reduces cohesiveness may have its own unique motivational properties for group members. In this regard, it is interesting that Williams and Sommer (1997) found that women who had been ostracized by a group actually worked harder collectively than coactively, whereas ostracized men showed a nonsignificant tendency to engage in social loafing. Being actively excluded from a group

may produce different motivations—such as a desire to reassert feelings of belonging or, conversely, to demonstrate one's reciprocal rejection of the group through further disengagement—than viewing other group members as dissimilar or engaging in unfavorable interactions.

Our results also suggest that group cohesiveness may influence the degree to which members focus their attention on strategic, individualistic concerns. The pattern of means producing the predicted, significant interaction shows that members of high-cohesiveness groups worked relatively hard regardless of whether they were working coactively or collectively, whereas members of low-cohesiveness and control groups appear to have worked very hard coactively and significantly less hard collectively (see Table 1). The CEM suggests that individuals are unlikely to systematically process all information relevant to the situation and task and are likely to focus on salient features. Therefore, "some situations may lead individuals to respond automatically to a preexisting effort script, whereas other situations may lead individuals to strategically increase or decrease their collective effort" (Karau & Williams, 1993, p. 685). Members of noncohesive groups may have been more attentive to the strategic implications of their efforts than were members of cohesive groups, and may have behaved in a manner that maximized their individual outcomes relative to costs. The cooperative versus competitive aspect of the cohesion manipulation likely strengthened these tendencies. Specifically, when working coactively, members of low-cohesiveness and control groups may have enhanced their efforts because of the risk of a potentially negative comparison with their coworker. However, when working collectively, they may have reduced their efforts because this allowed them to devote less effort to the task without being identified, and the group outcome had low relevance to their own self-evaluation. In contrast, members of highly cohesive groups behaved in a much less individualistic and strategic fashion, and worked fairly hard both coactively and collectively.

With regard to self-evaluation processes, it is intriguing to compare our results with those of Harkins and Szymanski (1989), who found that providing a tangible, objective, group-level performance standard eliminated social loafing within noncohesive groups. In contrast, we found that social loafing was eliminated in cohesive groups merely by telling participants that group-level comparisons would be made, without actually providing a comparison standard. Both their findings and ours suggest that enhancing individuals' attention to how a collective performance may have implications for their own self-evaluation can eliminate social loafing. However, this concern for group and collective outcomes may be harder to activate in members of noncohesive groups, who will likely view such outcomes solely in terms of individual consequences. Therefore, consistent with the CEM, group-level outcomes may have special relevance to members of cohesive groups.

In conclusion, our research demonstrates that group cohesiveness can eliminate social loafing when individuals' efforts are seen as useful and important to a valued group performance. By actually manipulating group cohesiveness, we have taken the vital first step of separating cohesiveness from mere friendship or teammate status. Our results, as well as the logic of the CEM, also provide several tantalizing clues as to why and when cohesiveness might enhance individual members' motivation. Future research could seek to identify the conditions under which specific aspects of cohesiveness, such as task commitment (e.g., Zaccaro & McCoy, 1988) and identification with the group (e.g., Hogg, 1992), enhance motivation, examine the effects of discrete aspects of attraction to the group, or clarify further the motivational implications of low cohesiveness levels. Such research could be very useful in developing cohesiveness interventions that could reduce or eliminate the potential for motivation losses in groups.

References

Abrams, D., & Hogg, M. A. (1990). *Social identity theory: Constructive and critical advances.* New York: Springer-Verlag.

Breckler, S. J., & Greenwald, A. G. (1986). Motivational facets of the self. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 1, pp. 145–164). New York: Guilford Press.

Brickner, M. A., Harkins, S. G., & Ostrom, T. M. (1986). Effects of personal involvement: Thought provoking implications for social loafing. *Journal of Personality and Social Psychology, 51,* 763–769.

Byrne, D. (1997). An overview (and underview) of research and theory within the attraction paradigm. *Journal of Social and Personal Relationships, 14,* 417–431.

Duck, S. (Ed.). (1994). *Dynamics of relationships.* Thousand Oaks, CA: Sage.

Evans, N. J., & Jarvis, P. A. (1980). Group cohesion: A review and re-evaluation. *Small Group Behavior, 11,* 359–370.

Goethals, G. R., & Darley, J. M. (1987). Social comparison theory: Self-evaluation and group life. In B. Mullen & G. R. Goethals (Eds.), *Theories of group behavior* (pp. 21–47). New York: Springer-Verlag.

Hardy, C. J., & Latané, B. (1988). Social loafing in cheerleaders: Effects of team membership and competition. *Journal of Sport and Exercise Psychology, 10,* 109–114.

Harkins, S. G., & Petty, R. E. (1982). Effects of task difficulty and task uniqueness on social loafing. *Journal of Personality and Social Psychology, 43,* 1214–1230.

Harkins, S. G., & Szymanski, K. (1988). Social loafing and self-evaluation with an objective standard. *Journal of Experimental Social Psychology, 24,* 354–365.

Harkins, S. G., & Szymanski, K. (1989). Social loafing and group evaluation. *Journal of Personality and Social Psychology, 56,* 934–941.

Hogg, M. A. (1992). *The social psychology of group cohesiveness: From attraction to social identity.* New York: New York University Press.

Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology, 65,* 681–706.

Karau, S. J., & Williams, K. D. (1995). Social loafing: Research findings, implications, and future directions. *Current Directions in Psychological Science, 4,* 134–140.

Karau, S. J., & Williams, K. D. (1997). The effects of group cohesiveness on social loafing and social compensation. *Group Dynamics: Theory, Research, and Practice, 1,* 156–168.

Kirk, R. E. (1982). *Experimental design* (2nd ed.). Belmont, CA: Wadsworth.

Shirakashi, S. (1985). Social loafing of Japanese students. *Hiroshima Forum for Psychology, 10,* 35–40.

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

Williams, K. D., Harkins, S. G., & Latané, B. (1981). Identifiability as a deterrent to social loafing: Two cheering experiments. *Journal of Personality and Social Psychology, 40,* 303–311.

Williams, K. D., & Sommer, K. L. (1997). Social ostracism by coworkers: Does rejection lead to loafing or compensation? *Personality and Social Psychology Bulletin, 23,* 693–706.

Zaccaro, S. J., & McCoy, M. C. (1988). The effects of task and interpersonal cohesiveness on performance of a disjunctive task. *Journal of Applied Social Psychology, 18,* 837–851.