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COOPERATION: THE MODERATING ROLE OF SUBGROUP REPUTATIONS

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ABSTRACT

Two experiments tested the effects of organizational identification on individual

decisions to cooperate. These decisions occurred in the context of a nested social dilemma in

which individuals, subgroups, and the larger collective each held distinct and incompatible

interests. In study one, when the two subgroups in the dilemma were from different real

organizations, higher organizational identification caused lower cooperation with the collective

(and higher cooperation with the subgroup) when the opposing organization had a purportedly

individualistic culture and reputation. The results of study two supported this interpretation by

showing that organizational identification had a negative effect on collective cooperation, and a

corresponding positive effect on subgroup cooperation, when decision makers perceived the

opposing department to have an individualistic reputation. I discuss the implications of these

results for organizations that try to elicit cooperation by fostering members' organizational

identification.

Recent organizational trends have exacerbated the classic problem of eliciting cooperation from organizational members. Flattened hierarchies, increasingly dispersed and temporary employees, frequent restructuring and downsizing, and the rapid pace of change have undercut traditional formal means of obtaining cooperation by monitoring behavior and outcomes. One response to this problem is to rely on members' psychological identification with the organization, along with formal contractual obligations, to cause them to act in the organization's interests (Ashforth & Mael, 1989; Kramer, 1993; O'Reilly & Chatman, 1996; Pfeffer, 1994; Pratt, 1998; Robinson, 1996). Concerns about such contractual and psychological causes of cooperation arise because individuals often act in their own rather than the organization's interests—an alternative so powerful that self-interested behavior is a fundamental assumption of the field of economics (von Neumann & Morgenstern, 1944). Moreover, self-interest typically is not the only alternative to satisfying organizational interests; the distinct interests of organizational subgroups (e.g., departments) often play a prominent role in individuals' decisions. Nested social dilemmas occur when individuals must decide whether to satisfy self-interest, subgroup interests, or the interests of the larger collective (e.g., the organization) when these three sets of distinct interests are incompatible (Wit & Kerr, 1994). The purpose of this paper is to explore how subgroup composition, organizational identification, and the interplay between these two factors influence the way individuals resolve dilemmas among self, subgroup, and collective interests.

Organizations are rife with examples of nested social dilemmas involving distinct subgroup interests. Consider Peter Wright, former Assistant Director of Britain's MI5 Security

Service division, who vividly described in his memoir the dilemmas created by the rivalry between MI5 and its counterpart MI6 (roughly equivalent to the United States' FBI and CIA). Although MI5 and MI6 shared membership in the Security Service organization, the members of these divisions routinely had to decide with whom they would share particular pieces of secret information gathered through spy activity. MI5 members sometimes withheld information from MI6 members because of the rivalry between the two divisions that stemmed from competition for scarce resources. Each side's perception of the other's secrecy fueled their own reticence to cooperate. Of course, when the information concerned the workings of Soviet Military Intelligence during the Cold War, it was in the larger Security Service organization's best interest for this information to be shared between divisions. This dilemma between subgroup and collective interests was further complicated by self-interest, which led some British defectors to give classified information to British adversaries in return for money (Wright, 1987).

Simon (1945) observed the same phenomenon of incompatible subgroup and collective interests in two California state unemployment agencies, each of which spent substantial state resources competing to shift responsibility for particular clients over to the other agency. Similar dilemmas arise after corporate acquisitions when employees continue to act in the interest of themselves or their old company, despite the interests of the larger new organization in which their old company is now a subgroup (Haspeslagh & Jemison, 1991; Hogan & Overmyer-Day, 1994). Browning, Beyer, and Shetler (1995) described this type of dilemma at SEMATECH, a research consortium in the semiconductor industry, in which the collective interests of the consortium were often at odds with the interests of subgroups of employees from each of the

companies that comprised the consortium. As these examples demonstrate, a variety of

configurations of organizational boundaries can demarcate the subgroup and collective interests

that characterize nested social dilemmas.

The composition of the subgroups involved in a nested social dilemma is likely to affect

cooperation. Subgroup composition refers to both the characteristics of each subgroup

considered separately (e.g., the norms of the marketing department) and the particular

constellation of subgroups in a dilemma (e.g., the marketing and engineering departments).

Subgroups may vary in their internal norms, external reputations, and the nature of their relations

with other subgroups. Subgroup composition is important because cooperative behavior by

individual members of a collective may depend on the characteristics of both the particular

subgroup they belong to and the particular subgroup to which they belong and the particular

subgroup with which they are interdependent.

A second factor that may influence cooperation in nested social dilemmas in

organizations is the extent to which individuals identify with their own organization (Ashforth &

Mael, 1989; Kramer, 1993; Pratt, 1998). Because the work organization is a primary group

(Homans, 1950) that forms a core social identity for many people, organizational researchers

have singled out organizational identification as a particularly prevalent instance of group

identification (Dutton, Dukerich & Harquail, 1994; Lee, 1971; Rotondi, 1975). Group

identification is "that part of an individual's self-concept which derives from his knowledge of

his membership in a social group (or groups) together with the value and emotional significance

attached to that membership" (Tajfel, 1978: 63). It is a perceptual-cognitive process of self-

definition through which key characteristics of the group are taken on or internalized as key characteristics of the individual (Ashforth & Mael, 1989; Dutton, Dukerich & Harquail, 1994; Turner, 1982). It is also a fundamental feature of organizational life, as Simon (1945: 206) observed: "Identifications with group or with function are such an all-pervasive phenomenon that one cannot participate for fifteen minutes in political or administrative affairs, or read five pages in an administrative report, without meeting examples of them."

Identifying with a particular group such as one's organization has important consequences (March & Simon, 1958). People tend to exhibit a favorable bias toward members of their ingroup by regarding them as relatively trustworthy, honest, and cooperative, resulting in a depersonalized or group-based trust (Brewer, 1981). Trust based on group identification facilitates cooperation because it reduces the fear that other group members will exploit cooperation by not reciprocating it. Identification may also enhance cooperation by shifting the self-concept to the group level. People think of themselves as an interchangeable member of the group with which they identify, dampening the distinction between their own and other group members' outcomes (Turner, 1987; Brewer, 1979; Kramer, 1993).

These mechanisms through which group identification increases cooperation—reducing fear of exploitation and conceiving of oneself as an interchangeable group member—suggest some boundary conditions, for this effect, particularly in the presence of distinct subgroups within the group. First, if a particular opposing subgroup has a reputation for uncooperative behavior, the fear of getting exploited by the members of that subgroup may be too strong for collective identification to overcome. Second, when subgroups are highly distinct, even

individuals with strong collective identification may be hard-pressed to conceive of themselves as interchangeable members of the collective. These potential boundary conditions stem from specific characteristics of the subgroups comprising the larger collective. Accordingly, the studies that follow explore whether the benefits of individual identification with an organization are moderated by the characteristics of an opposing subgroup in nested social dilemmas.

Overview of Studies

I test these ideas about the interplay between subgroup composition and organizational identification in two experimental studies of social dilemmas. Social dilemmas are defined by the choice group members face between acting in their self-interest (defecting) and acting in the interest of a group to which they belong (cooperating) (Hardin, 1968; Messick & Brewer, 1983). Regardless of the decisions of others, each individual profits more by defecting than cooperating. However, individual defection is less profitable to the collective than cooperation, so that all individuals are worse off if all defect than if all cooperate (Dawes, 1980). In game theoretic terms, the dominant strategy for each individual leads to an inefficient equilibrium (Dawes, 1975).

In most social dilemma studies, subjects are presented with a dilemma between only two choice options (the self and a single group). An exception is the nested social dilemma paradigm developed by Wit and Kerr (1994) to study dilemmas involving multiple group interests. This paradigm is modeled so that each individual belongs to both a subgroup and a larger collective, and must decide among acting in the interests of the self, subgroup, or collective. Wit and Kerr (1994) explored the effects of social categorization in a nested social dilemma by varying the

salience of the individual, subgroup, and collective levels via three common fate manipulations (Campbell, 1958). They manipulated the number of people whose outcomes were identically affected by a particular dice roll. Subjects in their study made the highest allocations to the collective when a single die was rolled to determine whether all members of the collective received payment. Higher allocations to the subgroups occurred when a die was rolled separately for each subgroup, while allocations to the individual level were highest when a separate die was rolled for each individual. This pattern of allocations supported the authors' general hypothesis that identification with a group leads to more cooperation with the group, assuming that heightened salience increased identification. Wit and Kerr (1994) did not investigate the effect of subgroup composition, nor did they measure group identification.

The two studies in this paper employ the boundary configuration and payoff structure of the nested social dilemma paradigm. Both studies examine how subgroup characteristics moderate the beneficial effects of organizational identification, a concept that heretofore has been lauded almost unequivocally for its advantages. The first study tests whether the psychological distance between subgroups, stemming from the degree of similarity and the historical relationship between them, moderates the effect of organizational identification. The second study investigates how subgroups' cultural norms and reputations, especially concerning individualistic behavior, moderate organizational identification. Little research has studied these phenomena in settings involving multiple group boundaries, a serious gap when one considers the frequency of organizational decisions involving the interests of multiple groups.

STUDY 1

Situations involving multiple groups are more complex than when only a single group is considered. Part of this complexity occurs because, given a particular ingroup, all outgroups are not equal. While members of an ingroup may feel very differentiated from one outgroup, the contrast with another outgroup may be less distinct. In other words, outgroups may vary in their psychological distance from the ingroup. Following the work of Sumner (1906) and LeVine and Campbell (1972), Brewer (1986: 89) pictorially represents an ingroup as a bounded entity with "its relations with various outgroups represented by the linear distance between them. The distance measure summarizes the intensity of the conflict ... and the concomitant psychological differentiation" between the two groups. Although psychological distance may be a result of differentiation along numerous dimensions (Kruskal & Wish, 1991; Wish, Deutsch & Biener, 1970), LeVine and Campbell (1972) propose that between groups, multiple dimensions will be positively correlated and scale as a unidimensional scale. This will effectively result in a single psychological distance between the ingroup and each particular outgroup. In nested social dilemmas, the psychological distance between pairs of subgroups may vary depending on a) the composition of the subgroups; b) members' identification with the subgroup or collective; and c) the degree of competition between subgroups.

Subgroup composition. Psychological distance may depend on the strength and nature of the commonalities or differences between the two subgroups that comprise the collective. In some cases, shared characteristics of the subgroups may shape their relationship, reducing the psychological distance between them. For example, two subgroups, while distinct, may belong to the same organization, and may recognize the importance of this shared membership. In other

instances, differences between the subgroups may be more conspicuous to the subgroup members, increasing the psychological distance between the subgroups. For example, two subgroups may not be aware of any similarities, knowing little about each other except that they belong to different groups. Alternatively, two subgroups may know many specific details about their differences, as when their relationship is defined by a history of competition.

The particular composition of opposing subgroups thus influences the degree of differentiation, or psychological distance, between them. Because psychological distance between subgroups is likely to be associated with a heightened level of perceived intersubgroup competition (Brewer, 1986), differentiation between subgroups is predicted to affect resource allocation decisions. Specifically, in a nested social dilemma:

H1: Subjects will allocate fewer resources to the collective level and more resources to the subgroup level as the degree of differentiation between the subgroups increases as a function of composition.

A key distinction in organizational arenas is whether the subgroups in a collective endeavor share membership in the same organization. All else equal, subjects should cooperate more with the collective and less with the subgroup when the subgroups share membership in an organization than when they do not. Moreover, distinctions within and between organizations may affect allocations. Within organizations, for example, subgroups in a particular decision context may belong to the same department, making them even more similar, or they may belong to separate departments, increasing the distinction between them. Between organizations, differentiation should be higher when subgroups come from competing organizations than from

organizations that are unknown to one another.

Organizational identification. Individuals who identify strongly with their organization should be likely to cooperate with the organization's interests (Kramer, 1993). In the context of a nested social dilemma, if the subgroups are from the same organization, individuals who identify strongly with the organization should perceive less differentiation between subgroups, and therefore allocate more to the collective and less to the subgroup, than those who identify weakly with the organization. Because organizational identification imbues membership in that organization with a heightened significance (Tajfel, 1978), the distinction between subgroups from one's own and another organization should carry more weight for those who identify strongly with their organization. Therefore, if two subgroups are from separate organizations, strong identification should lead people to perceive a sharper distinction between subgroups, and therefore allocate less to the collective and more to the subgroup, compared to those who do not identify with their organization. This suggests a qualification to Hypothesis 1:

> H2: Subgroup composition will moderate the effect of organizational identification on allocations. When subgroups belong to the same organization, stronger organizational identification will cause higher allocations to the collective and lower allocations to the subgroup. When subgroups belong to different organizations, stronger organizational identification will lead to the opposite pattern of allocations.

An implication of this reasoning is that organizational identification that is fostered with an eye toward eliciting cooperation with the organization may harm cooperative endeavors with those outside the organizational boundary.

Subgroup competition. Competition between subgroups may result from historical relations, as described above, or it may arise from the payoff structure of a specific decision context. Organizational subgroups frequently compete for resources within organizations (March & Simon, 1958; Friedkin & Simpson, 1985). When two subgroups are pitted against each other for resources (e.g., budget allocations) such that one group wins and the other group loses, this intergroup competition often engenders an "us versus them" mentality. Alternatively, other reward structures do not foster intergroup competition because each group can achieve an outcome that is independent of the other group's outcome. Therefore:

H3: A reward structure that activates a competitive orientation between subgroups (versus one that does not) will decrease cooperation with the collective and increase cooperation with the subgroup.

METHODS

Subjects. Subjects were 177 graduate management students from Northwestern University's Kellogg Graduate School of Management (N= 114) and the University of Chicago Graduate School of Business (N= 63) who participated in the study as part of a regularly scheduled class. I employed these schools' real group boundaries to operationalize subgroup and collective membership and the corresponding level of historical competition between subgroups. There is a competitive relationship between the students from these two schools that stems from rankings of top business schools, proximity, and competitive interactions, such as the annual "Olympics," between the two schools (Byrne, 1995). Because of the competitive nature of their relations, these two schools were chosen to facilitate a manipulation of the degree and nature of

the psychological distance between subgroups.

The written exercise that comprised the study included an explanation of the nested social dilemma, the independent variable manipulations, and the dependent variable measures, as described below. Subjects were given a chance to receive money based on their decisions to motivate them to fully engage in the exercise.

Design. I employed a 2 x 2 x 4 between-subjects factorial design to test the hypotheses. The independent variables were school (2 schools), subgroup competition (2 conditions), and subgroup composition (4 conditions). Subjects from each school were randomly assigned to subgroup composition and subgroup competition experimental conditions. The fourth independent variable was a continuous measure of each subject's identification with his or her respective business school. The dependent variables were subjects' individual allocations of five dollars among the private, subgroup, and collective accounts in the nested social dilemma.

Procedure. Each subject was told that they had been randomly assigned to a three-person subgroup and that this subgroup had been randomly paired with another three-person subgroup to form a six-person collective. The members of each subgroup and collective were completely anonymous to each other, with the exception of knowing some information about their real group memberships (i.e., the manipulation of subgroup composition described below). Each subject was endowed with five dollars to allocate among three accounts that had been set up for this exercise. Subjects could allocate their money among the accounts in any three increments that summed to five. Each subject had his or her own *private account*; dollars allocated to the private account were multiplied by 1 and returned to the individual holder of the account. Subjects could

also allocate to their *subgroup account*, which included the participant and two randomly paired subgroup members. Dollars allocated to the subgroup account were multiplied by 2.5, with the resulting pool of money divided equally among the three subgroup members. Each subgroup had its own subgroup account. The *collective account* included the participant and the other five collective members (i.e., all members of both subgroups). Each dollar allocated to the collective account was multiplied by 4, with the resulting pool of money divided equally among the six collective members. Thus, each subject had a personal total payoff that was the sum of 1) the amount in their private account, 2) their equal share of the pool of money in their subgroup account, and 3) their equal share of the pool of money in the collective account. The multipliers (1, 2.5, and 4) and the size of the subgroups (3) and collective (6) used in this study were the same as those used by Wit and Kerr (1994). With this structure, the incremental change in marginal per capita return (Isaac, Walker, & Thomas, 1984) was the same when shifting from the private to the subgroup account ((1/1) - (2.5/3)=.167) as from the subgroup to the collective account ((2.5/3) - (4/6)=.167).

These three allocation options presented subjects with a dilemma. On one hand, regardless of the accounts to which any other participants allocated their money, each individual maximized his or her outcome by allocating all five dollars to his or her private account. On the other hand, the combined profit of all participants in a person's subgroup was maximized if all subgroup members allocated their money to their subgroup account, regardless of how participants in the other subgroup allocated their money. Finally, the collective profit (i.e., the total amount of money made by everyone from both subgroups) was maximized if all participants

allocated their money to the collective account. Therefore, if all participants allocated to their

private account, they would each be worse off than if all had allocated to their subgroup account

or, better yet, to their collective account. Self-interest, subgroup-interest, and collective-interest

were at odds.

Subgroup composition manipulation. Each subject participated in the study as part of a

class within their business school. In all conditions, the subject's own subgroup consisted of the

subject and two other anonymous people from the subject's own class. I manipulated the

composition of the other subgroup. In the four conditions, the three members of the other

subgroup were specified as anonymous members of A) the subject's own class (N= 43), B)

another class in [the subject's business school] (N= 43), C) a group outside of [the subject's

business school] (N= 48), or D) a class in [the rival business school] (N= 43). These four

conditions were intended to increase the differentiation between the subject's own subgroup and

the other subgroup in each condition from A to D. The boundaries around the groups can be

diagrammed as follows (with subgroup X being the subject's own subgroup and subgroups A, B,

C, and D representing the four subgroup composition conditions):
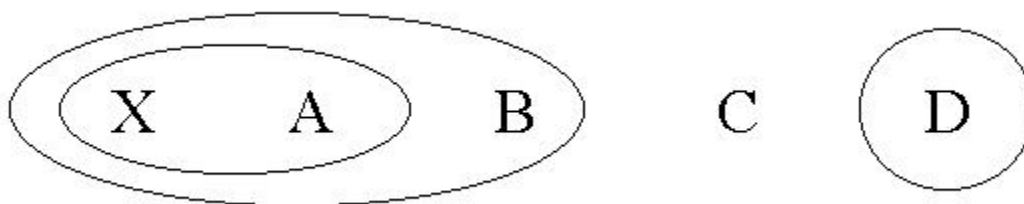
As the diagram illustrates, subgroups X and A are least differentiated because they share a

class and school boundary. Subgroups X and B share a school boundary but are separated by the

class boundary. Subgroup C is outside the school boundary of subgroup X, but nothing else is

known by subgroup X members about subgroup C. Subgroup D is also outside the school

boundary of subgroup X, but is further differentiated from Subgroup X because it has its own

school boundary. Subgroup D is from a competing school, providing the greatest differentiation

from Subgroup X of any of the subgroups.

Subgroup competition manipulation. Subjects were informed that after all participants

had returned their decisions, a personal total payoff would be calculated for each subject. This

payoff was the sum of three amounts as described above. Each subject had a .50 probability of

actually receiving the amount of money in their personal total payoff. Subjects received payment

if they won a coin flip. In the *no subgroup competition* condition (N= 88), subjects were told

that a separate coin flip for each subgroup would determine whether the members of each

subgroup received their payoffs. The subgroups' outcomes were independent; both subgroups

could win, both could lose, or one could win and the other lose. In the *subgroup competition*

condition (N= 89), subjects were told that a single coin flip would determine whether the

participants in their subgroup *or* the other subgroup would be paid. The subgroups' outcomes

(i.e., regarding whether they were paid) were perfectly negatively correlated; one subgroup won

the coin flip and received payment and the other subgroup lost the coin flip and did not receive

payment. In both conditions, the coin flip created a common fate for members within a subgroup

that heightened the salience of the subgroup boundary, but the second condition was intended to

evoke a competitive "us versus them" orientation that the first condition did not evoke. The first

condition was patterned after one of the manipulations used by Wit and Kerr (1994), while the

newly-created subgroup competition condition was designed to test Hypothesis 3. Note that in

both conditions every subjects' probability of receiving payment was a constant .50, and that

these manipulations were likely to heighten subgroup salience to some extent across all

conditions of subgroup composition.

The subgroup composition and subgroup competition conditions were fully crossed, and

conditions were randomly assigned to subjects in each school. After reading a description of the

nested dilemma that included the manipulations, subjects were asked to allocate their five dollars

among the three accounts. Subjects were not allowed to talk while reading the instructions and

making their allocation decisions. Confidentiality of allocation decisions was ensured. On the

last page of the decision exercise, subjects were given a brief description of the concept of

organizational identification and asked to rate the extent to which "I identify with [name of

subject's business school]" on a scale of 1 (not at all) to 5 (very strongly) (taken from the scale in

Hinkle, Taylor, Fox-Cardamone, & Crook, 1989). This score (M= 3.38; s.d.= 0.93) was used as

a measure of organizational identification (r_{wg} for Kellogg subjects = .52; r_{wg} for Chicago

subjects = .67). Subjects were debriefed in class. After the exercise had been run in all classes,

subjects were paid based on their own and others' allocations to the three accounts and the coin

flip as described in each exercise. Actual payments ranged from $0 (for those who lost the coin

flip) to $17. The only information conveyed in making the payoff was the subject's total personal

payoff amount and the result of the coin flip determining whether they would receive this

amount. All other information about participants' decisions remained confidential.

Analyses. To test the hypotheses, I conducted a multivariate analysis of variance

(MANOVA) in which allocations to the collective, subgroup, and private accounts were

dependent variables, and subgroup composition, subgroup competition, school, and school

identification (a continuous variable) were independent variables. Because allocations to the

collective, subgroup, and private accounts were linearly related, the value of any one allocation

could be determined with certainty if the values of the other two allocations were known.

Because of this feature of the three dependent variables, including all three simultaneously in a

MANOVA causes the computational procedures to break down (see Harris (1985: 109-115) for a

full explanation of these computations). Instead, only two of the three dependent variables were

included simultaneously.   The multivariate statistical tests were identical regardless of which

two of the three dependent variables were included because the third dependent variable provided

completely redundant information. However, the three dependent variables were not perfectly

correlated, as are allocations in a dilemma with two choice options, so that knowledge of the

univariate test statistics for any two of the dependent variables did not provide certain knowledge

of the test statistic for the third dependent variable. Thus, I report the univariate tests for all three

dependent variables (see Insko, Schopler, Drigotas, Graetz, Kennedy, Cox, and Bornstein (1993)

for a similar treatment of linearly related dependent variables).

RESULTS

Hypothesis 1 predicted that subjects would allocate less to the collective and more to the

subgroup as the degree of differentiation between the subgroups increased as a function of their

composition. Although the multivariate main effect for subgroup composition was not

significant, the MANOVA revealed a significant two-way interaction between subgroup

composition and school (multivariate test: $F_{(6,276)}= 2.22$, $p< .05$) with a significant univariate

effect for subgroup allocations (F(3,140)= 3.78, p< .05). To interpret the pattern of this interaction, I conducted separate simple effects analyses for subjects within each school. For subjects from Kellogg, there was a main effect for subgroup composition (multivariate test: F(6,204)= 2.71, p< .05), with the univariate tests revealing a main effect for subgroup allocations (F(3,104)= 4.86, p< .01). Subgroup allocations were lower when the subgroups shared membership in an organization than when they did not (same class condition, M=1.07; same school, different class, M=1.40; outside of school, M=1.53; rival school, M=1.61). This main effect was not significant for subjects from Chicago. This pattern of subgroup allocations by Kellogg subjects provides some support for hypothesis 1.

Hypothesis 2 predicted that the effect of organizational identification on cooperation would be moderated by whether the subgroups shared membership in the same organization. Specifically, organizational identification was expected to have a positive effect on collective allocations and a negative effect on subgroup allocations when both subgroups were from the same organization, but the opposite effects when subgroup members were from different organizations. While the interaction between subgroup composition and organizational identification was not significant, the MANOVA revealed a significant three-way interaction among subgroup composition, organizational identification, and school (multivariate test: F(6,276)= 2.16, p< .05). I again conducted simple effects analyses for subjects from each school to interpret this three-way interaction.

For subjects from Kellogg, a significant two-way interaction emerged between subgroup composition and organizational identification for subjects from Kellogg (multivariate test:

F(6,204)= 3.34, p< .01), with significant univariate tests for collective allocations (F(3,104)=3.19, p< .05) and subgroup allocations (F(3,104) =5.79, p< .001). To discern the form of this two-way interaction, I conducted a median split of the organizational identification continuous variable (median=3; mean=3.38), dividing subjects into two categories: those who identified strongly with their school (4-5 on the 5 point scale; n=81) and those who did not identify strongly with their school (1-3 on the 5 point scale; n=91). As shown in Table 1, for Kellogg subjects who identified strongly with their school, increased differentiation between subgroups caused higher allocations to the subgroup account, particularly for the condition in which the other subgroup consisted of students from Chicago. A corresponding decrease in mean collective allocations occurred as subgroup differentiation increased. Post hoc pairwise comparisons revealed that the differences in mean allocations among the subgroup composition conditions were not significant for subjects from Kellogg who identified weakly with their school. In the simple effects analysis for subjects from Chicago, there were no significant effects for subgroup composition, organizational identification, or the interaction between the two. Relatively low variance in organizational identification among Chicago subjects (i.e., r_{wg} =.67) could be partially responsible for this lack of effects.

Insert Table 1 about here.

The correlations presented in Table 2 provide supplemental support for the reasoning underlying hypothesis 2. For Kellogg subjects, organizational identification was positively

correlated with collective allocations and marginally negatively correlated with subgroup

allocations when both subgroups were from Kellogg (i.e., conditions A and B of subgroup

composition). When the opposing subgroup was from outside Kellogg, the relationship between

organizational identification and collective allocations was either nonexistent or negative (albeit

not significantly negative), while organizational identification and subgroup allocations were

strongly positively correlated when the opposing subgroup was from the rival school (condition

D). This pattern, which is consistent with hypothesis 2, is pictorially represented in Figure 1.

Insert Table 2 and Figure 1 about here.

Hypothesis 3, which predicted that a reward structure that activated a competitive

orientation between subgroups (versus one that did not) would decrease cooperation with the

collective and increase cooperation with the subgroup, was not supported. It was noteworthy that

subjects from Chicago allocated significantly more resources to their private accounts (M=2.32)

than did subjects from Kellogg (M=1.28) (t(175)=-3.45, p<.001). Beyond the effects reported

above, no other main effects or interactions were significant in the full MANOVA.

DISCUSSION

Does the effect of organizational identification on cooperation depend on whom the

decision-maker shares interdependence with? The results of this study suggest the answer is yes.

 If the people involved in and affected by the decision are all from the same organization,

identification with that organization increases collective cooperation as suggested by previous research (Kramer, 1993). If a subgroup involved in the decision is from outside the organization boundary, however, organizational identification has either no effect on collective cooperation, in the case of an unknown organization, or a negative effect, in the case of a competitor organization. This pattern was found for allocations by Kellogg subjects, who were paired with Chicago students in the condition of a competitor organization.

One interpretation of this finding is that when members of competitive organizations are made interdependent by the structure of a particular decision, those who identify strongly with their organization will respond by decreasing their cooperation with the larger collective. Subjects from the two schools responded differently to the decision context, however, as only subjects from Kellogg exhibited this allocation pattern. Specifically, Kellogg subjects who identified with Kellogg but were paired with Chicago subjects allocated comparatively small amounts to the collective account that they shared with Chicago subjects (compared to a "control" condition in which outgroup members were external to the Kellogg boundary, but otherwise unknown). A difference between schools that may illuminate their responses to the experimental conditions is that subjects from Chicago allocated more money to their private accounts. This defection rate suggests the speculative explanation that Kellogg subjects expected Chicago subjects to make self-interested decisions and, in response, withdrew their own cooperation from the collective.

Why would Kellogg subjects anticipate self-interested behavior by Chicago subjects? The answer may stem from the cultures and corresponding reputations of the two schools.

During the time these data were collected, the two MBA programs were anecdotally

characterized as having different norms. Kellogg was known for its focus on teamwork and the

value it placed on cooperation among its students, while Chicago was known for its relative

financial and economic orientation (Byrne, 1995). This speculative difference between the two

schools may be akin to organizations that have individualistic versus collectivistic cultures

(Early, 1993; O'Reilly & Chatman, 1996). People in individualistic cultures tend to behave in

ways that meet their individual needs, but place relatively little utility on others' outcomes. The

primary unit of analysis is individuals, who are regarded as autonomous (Hofstede, 1980;

Triandis, 1995). People in collectivistic cultures, in comparison, emphasize the outcomes of

others in the organization along with their own. Individuals are regarded as interdependent

members of groups, which form the primary unit of analysis (Triandis, 1995).

Empirical research supports the notion that such cultural differences affect cooperation.

When faced with dilemmatic decisions, people from individualistic cultures have been found to

defect more than people from collectivistic cultures (Cox, Lobel, & McLeod, 1991; Early, 1989).

Likewise, people trained in economics have been found to defect more in social dilemmas than

people without such training (Frank, Gilovich & Regan, 1993; Marwell & Ames, 1981).

Accordingly, if Kellogg subjects expected Chicago students to act self-interestedly, this may have

caused Kellogg students with strong school identification to shift their allocations away from the

collective account and into their subgroup account, benefiting only their fellow Kellogg students.

This interpretation suggests that the norms and corresponding reputations of particular

subgroups or organizations may moderate the effect of organizational identification, beyond the

simple dichotomy of whether an outgroup belongs to the same organization as the decision-maker. Study two was designed in part to test this interpretation.

STUDY 2

The results of study one suggest that the effect of organizational identification on cooperation is moderated by the cultural norms and corresponding reputation of the particular outgroup involved in the decision context. Although this was found when the two subgroups were from different organizations, the same forces could operate between departments within a single organization. Just as organizations have distinctive cultures, as speculated about Kellogg and Chicago in study one, single organizations often contain distinct subcultures (Trice & Beyer, 1993). Occupational differences are a prevalent source of subcultures within organizations (Gregory, 1983). Occupational values and norms are often reinforced by close proximity and frequent interaction among people from the same occupation within departments (Trice & Beyer, 1993).

Organizational members often work across departments to accomplish joint tasks. Many of these tasks are characterized by the unique interests of individuals, departments, and the organization, and therefore exhibit the properties of nested social dilemmas. In such contexts, strong organizational identification should promote cooperation with the organization's interests. This relationship, however, may depend on the cultures and corresponding reputations of the subgroups involved in the decision context. Specifically, a reputation for individualism in an opposing subgroup may spark the fear of exploitation that organizational identification would otherwise quell. When some subgroups have strong individualistic norms, it may be difficult for

people from more cooperative subgroups to conceive of themselves as interchangeable members

of the organization, despite strong organizational identification. Such cultural differences

between subgroups may focus people's attention on the boundary that separates the subgroups,

causing the collective boundary to recede in prominence (Kramer, 1991). Moreover, Schopler

and Insko (1992) suggest that people have schemas of outgroups that include an expectation of

competitive behavior. This expectation causes a fear of being exploited, and a subsequent

competitive response to reciprocate the expected competitiveness of the out-group. Such schemas

and expectations seem especially likely to become activated when an opposing subgroup has an

individualistic culture that is known to those outside the subgroup (i.e., by way of reputation). As

a result, individuals who would normally cooperate with the organization, such as those with

strong organizational identification, may instead shift their cooperation away from the collective

and toward their own subgroup (Tajfel, 1982).

This reasoning is consistent with research on the differences in behavior of people who

are either individualistic or collectivistic. For example, it is widely agreed that collectivists are

more likely than individualists to place collective interests ahead of self-interest when the two

sets of interests are in conflict (e.g., Earley, 1989; Wagner, 1995). Yet, this beneficence is not

universal, but instead is limited to an in-group that is clearly distinguished from out-groups

(Chen, Meindl, & Hunt, 1997). Indeed, collectivists are unlikely to cooperate with people from

an individualistic out-group. This research highlights the notion that people who tend to be

cooperative, such as those with strong organizational identification, are influenced by others in

the decision context - willing to cooperate when they expect others to cooperate, but also willing

to withdraw cooperation when they expect others to be individualistic (Chatman & Barsade, 1995). These considerations suggest the following hypothesis for a nested social dilemma in which subgroups have different cultural norms and corresponding reputations:

H1: The individualistic reputation of the opposing subgroup will moderate the effect of organizational identification on relative allocations to the organization and subgroup. When the other subgroup's individualistic reputation is low, people with strong organizational identification will allocate relatively more resources to the organization. When the other subgroup has a highly individualistic reputation, however, people with strong organizational identification will shift their allocations away from the organization and toward their own subgroup.

In the second study I again used real organizational boundaries to define a nested social dilemma, but I modeled the subgroups and collective using departments within a single organization. I selected departments that were likely to have predictably different norms and reputations concerning individualistic behavior. Specifically, I recruited subjects from a single university who were either economics majors or psychology majors. I expected these majors to vary culturally because different types of people may sort themselves into different majors and the tenets of these disciplines vary (e.g., economics majors study models that assume self-interested behavior, while psychology majors study how situational forces, such as group memberships, affect behavior). These expectations were consistent with empirical evidence that economists tend to defect more in social dilemmas than non-economists (Frank et al., 1993; Marwell & Ames, 1981). Specifically:

H2: Compared to psychology majors, economics majors will a) be more individualistic, b) allocate more money to their private accounts, and c) have a more individualistic reputation.

To increase variance in the individualistic reputation of the opposing department, I also included a measure of the reputation of sociology majors in the design of the study, expecting it to differ markedly in individualism from economics majors.

To test these hypotheses, I measured the social value orientations (Messick & McClintock, 1968; Kuhleman & Marshelo, 1975) of the participants from each department to assess whether their normative values differed, and I measured participants' perceptions of each department's reputation. I also measured both departmental and organizational identification using an established multi-item scale.

METHODS

Subjects. Subjects were 56 undergraduate economics and psychology students from a private university who participated in the exercise in exchange for money.

Design. Subjects' major department and university boundaries were used to define subgroups and the collective in the nested social dilemma. The independent variables included subjects' major (economics versus psychology), the opposing subgroup's major (economics versus psychology versus sociology), subjects' social value orientation, subjects' identification with their university and major department, and subjects' perceptions of the reputations of economics, psychology, and sociology majors. The primary dependent variables were subjects' individual allocation decisions among the three accounts in the nested social dilemma.

Procedure. Upon their arrival at the experimental session subjects were given a short questionnaire that measured their Social Value Orientation (SVO) (Messick & McClintock, 1968; Kuhleman & Marshelo, 1975). This questionnaire contained "decomposed games" in which subjects chose among three different pairs of outcomes for themselves and an unspecified other person. These options were structured so that subjects could be classified as individualists, competitors, or cooperators based on their choices. The outcomes were hypothetical points that were said to have value for the subject and the other person. Each option in a set of three outcome pairs corresponded to one of the social value orientations. For example, in one set subjects indicated whether they preferred 540 for self and 280 for other, 480 for self and 80 for other, or 480 for self and 480 for other. The first option in this example corresponded to an individualistic orientation because it maximized the outcome for self. The second option corresponded to a competitive orientation because it maximized the difference between self and other. The third option corresponded to a cooperative orientation because is maximized the joint outcome for self and other. Subjects chose among three such options nine times, and were classified into one of the three orientations if they chose the option corresponding to that orientation in at least six of the nine choice sets. Based on this classification criterion, the sample included 18 individualists, 6 competitors, 30 cooperators, and 2 unclassifiable subjects.

After completing and handing in this questionnaire, subjects proceeded to the nested social dilemma exercise. This dilemma was structured similarly to the nested social dilemma described in the procedure section of study one. In study two, subjects allocated six dollars rather than five as in study one. The multipliers (1 for the private account, 2.5 for the subgroup

account, and 4 for the collective account) and number of subgroup (3) and collective members (6) were identical to study one. The members of each subgroup and collective were completely anonymous to each other, except for their real group memberships. The exercise was conducted during experimental sessions to which subjects were recruited via email and flyer invitations. Subjects were not allowed to talk while completing the exercise.

The subgroup composition conditions (described below) were randomly assigned to students from each major. After reading a description of the nested dilemma that included the manipulations, subjects were given a quiz to ensure their understanding of the payoff structure. After checking the accuracy of their answers on this quiz, subjects proceeded to allocate six dollars among the three accounts. After making their allocation decisions, subjects completed measures of organizational identification, department identification, and perceptions of the reputations of psychology, economics, and sociology majors at their university. Subjects were given a written debrief at the conclusion of the session. After the study had been run in all sessions, payments were calculated and mailed to each subject.

Subgroup composition manipulation. In all conditions, the subject's own subgroup (hereafter called the ingroup) consisted of the subject and two anonymous people from the subject's own major (either economics or psychology). The three members of the other subgroup (hereafter called the outgroup) were specified as either A) psychology majors, B) economics majors, or C) sociology majors. Sociology majors were included in the subgroup composition manipulation to increase variance in subjects' perceptions of outgroup reputation.

Organizational and departmental identification measures. Subjects' identification with

their university was used as a measure of organizational identification, while identification with

their major department served as a measure of departmental identification. Both factors were

measured with an organizational identification scale adapted from Mael and Tetrick (1992),

along with the single item used in study one (Hinkle et al., 1989). The resulting eleven-item

scale included such items as "I am very interested in what others think about [name of

university]" and "When I talk about [name of university], I usually say 'we' rather than 'they'." A

separate scale with appropriately worded items assessed departmental identification (e.g., "I am

very interested in what others think about the psychology [or economics] department"). Each

item was rated on a 7-point Likert scale (1=strongly disagree; 7=strongly agree). Cronbach's

alpha for the scale was .90 for organizational identification and .81 for departmental

identification. I used the mean of the eleven items as each subject's organizational identification

score (overall mean= 4.50, s.d.= 1.16) and departmental identification score (overall mean= 3.67,

s.d.= 0.92).

   Department reputation measure. Subjects rated the reputations of students from each

department on several characteristics. Specifically, they were asked "To what extent do

[Psychology / Economics / Sociology] majors at this University possess the following

characteristics?" on a scale from 1 (not at all) to 7 (definitely). Five of the characteristics would

presumably help generate cooperation (generous, group-oriented, fair, trustworthy, cooperative)

and three individualistic characteristics would presumably be harmful to group welfare (self-

interested, greedy, competitive). A factor analysis confirmed that these eight items loaded on

two factors in the "cooperative" and "individualistic" constellations just described. Accordingly,

each subject's ratings of the characteristics in each factor were averaged for each department. Cronbach's alpha for the cooperative items was .77 for economics, .70 for psychology, and .86 for sociology, and for the individualistic items it was .74 for economics, .67 for psychology, and .64 for sociology. By matching each subject's departmental ratings with his or her major and subgroup composition condition, I transformed the department reputation ratings into four new variables: individualistic outgroup reputation (M= 4.39, s.d.= 1.17), cooperative outgroup reputation (M= 4.77, s.d.= 0.95), individualistic ingroup reputation (M= 4.98, s.d.= 1.00), and cooperative ingroup reputation (M= 4.33, s.d.= 0.87). The correlations among the variables are presented in Table 3.

Insert Table 3 about here.

Analyses. As in study 1, I used a series of ANOVA-based approaches to test the relationships among categorical independent variables (e.g., participants' major, participants' social value orientation) and continuous dependent variables (e.g., departmental reputations, participants' allocations). To test the interaction between individualistic outgroup reputation and organizational identification specified in hypothesis 1, I used regression equations because both independent variables comprising this interaction term were continuous. I reduced collinearity between this interaction term and its component main effects by computing the interaction term from mean-centered independent variables (Aiken and West, 1991). Finally, to reduce problems associated with the linear relationship among the three allocation dependent variables, I

combined collective and subgroup allocations by dividing collective allocations by the sum of

collective and subgroup allocations (hereafter called the "collective allocation ratio"). This

dependent variable measures subjects' relative allocation to the collective as a proportion of their

total cooperative allocations (i.e., to either the collective or subgroup). This new measure of the

collective allocation ratio corresponds most closely to the conceptual logic of hypothesis 1 while

reducing problems of interdependence among the dependent variables.

RESULTS

Were economics majors more individualistic than psychology majors? The sample of

economics majors consisted of 45% individualists, 10% competitors, and 45% cooperators, while

the sample of psychology majors was composed of 17% individualists, 13% competitors, and

70% cooperators. A chi-squared test indicated that subjects from the two majors differed

significantly in the predicted direction in their orientations ($\chi^2(2)= 4.61$, $p<.05$, one-tailed).

Were the reputations of these majors consistent with these social value orientations? A

repeated-measures analysis of variance indicated that economics majors' reputation was rated as

more individualistic (M= 5.53) and less cooperative (M= 3.93) than psychology majors'

reputation (individualistic M= 4.06; cooperative M= 4.91), and sociology majors' reputation was

rated as least individualistic (M= 3.38) and most cooperative (M= 5.21; ANOVA for

individualistic means $F(2,108)= 147.72$, $p<.001$; for cooperative means $F(2,108)= 80.27$, $p<.001$;

all pairwise contrasts between majors were significant at $p<.001$). These differences emerged in

ratings by both psychology and economics majors.

Did these differences in social value orientations and reputations affect allocations in the

nested social dilemma? A multiple analysis of variance indicated that subjects' social value

orientations did significantly affect private allocations ($F(2,51)= 5.20$, $p<.01$) and subgroup

allocations ($F(2,51)= 3.29$, $p<.05$), but not collective allocations ($F(2,51)= 2.02$, n.s.; multivariate

$F(6,96)= 2.46$, $p<.05$). Post hoc pairwise comparisons revealed that individualists allocated

significantly more to their private accounts ($M= 3.80$) than cooperators ($M= 1.70$; the difference

of either from competitors ($n = 6$) was not significant). Individualists also allocated significantly

less to the subgroup account ($M= 0.58$) than cooperators ($M= 1.40$).

Subjects' major had a significant effect on private allocations ($F(1, 50)= 4.03$, $p<.05$), as

economics majors ($M= 3.12$) allocated more to their private accounts than psychology majors

($M= 1.87$). Subjects' major did not significantly affect allocations to the collective account

(economics majors $M = 1.84$; psychology majors $M = 2.79$) or subgroup account (economics

majors $M = 1.08$; psychology majors $M = 1.33$). The major of the opposing outgroup did not

have a significant effect on allocations, nor did the interaction of subjects' major and the

outgroup's major. Neither of these categorical variables interacted significantly with subjects'

organizational or departmental identification.

Did the reputations of the respective departments moderate the effects of organizational

identification on allocations, as predicted by hypothesis 1? To test this hypothesis, private

allocations and the collective allocation ratio were regressed separately on a dummy variable

indicating whether or not the subject had a cooperative orientation, individualistic ingroup

reputation, individualistic outgroup reputation, departmental identification, organizational

identification, and the two-way interactions between individualistic outgroup reputation and each

of the two identification variables. To avoid multicollinearity, separate regressions were

conducted for individualistic versus cooperative reputations.

As shown in table 4, the analyses revealed two significant interactions on the collective

allocation ratio, the first between individualistic outgroup reputation and departmental

identification (beta= .45, p<.05) and the second between individualistic outgroup reputation and

organizational identification (beta= -.61, p<.001). Only the latter interaction was significant both

when entered alone and with the other interaction, however. To interpret this robust interaction

involving organizational identification, I split the sample at the median of individualistic

outgroup reputation (sample median= 4.00) and tested the main effects of organizational

identification in each subsample. When the outgroup had a highly individualistic reputation,

stronger organizational identification caused people to shift their cooperative allocations away

from the collective and toward the subgroup (beta= -.59, p<.05). When individualistic outgroup

reputation was low, organizational identification did not significantly affect the relative mix of

cooperative allocations (beta= .24, n.s.). A supplemental analysis revealed that this interaction

strengthened in significance when testing only those subjects who were paired with an outgroup

department that was different from their own major (n = 32; beta= -.56, p<.002 when entered as

the only interaction term in the equation).

Insert Table 4 about here.

For the collective allocation ratio, subjects' ratings of their own subgroup on

individualistic characteristics did not significantly affect allocations, nor did cooperative ingroup reputation or cooperative outgroup reputation (in separate regressions not shown). The only significant effect on private allocations was for cooperative orientation (beta = -.37, p<.05).

DISCUSSION

The results of study two show that the effect of organizational identification on cooperation is moderated by the reputation of departments within the organization. Specifically, when an opposing subgroup had a strong individualistic reputation, organizational identification caused people to shift their cooperation away from the collective and toward the subgroup. Thus, individualistic departmental norms appear to have harmful effects on collective welfare that extend beyond the boundaries of the individualistic department.

In contrast, cooperative departmental reputations had no effect on cooperation. Cooperation in social dilemmas has often been proposed to hinge on the dual motives of fear and greed (Dawes & Thaler, 1988). A cooperative outgroup reputation may have freed people from any fear of exploitation, allowing them to act in unconstrained ways—either cooperatively or uncooperatively. An individualistic outgroup reputation may have activated fear of exploitation, restricting cooperation in people who otherwise would have cooperated.

Economics majors defected more than psychology majors. This effect was completely consistent with the finding that economics majors were proportionally more likely to be individualists and less likely to be cooperators in social value orientation than psychology majors. While these orientations were manifested in subjects' allocation decisions, their effects reached beyond subjects' own decisions. Departmental reputations directly corresponded to the

social value orientations of the people in the department. These reputations, in turn, affected the decisions of others outside the department boundary in a way that hurt collective welfare. The results of this study provide evidence that individualistic norms in one group can decrease cooperation in another group, a potentially pernicious effect. If lack of cooperation in the second group is interpreted by external parties as individualistic behavior, individualistic norms in one group could have a ripple effect, depressing cooperation across multiple departments or organizations.

The department of the opposing subgroup in the nested social dilemma, which was manipulated, did not significantly affect allocations. At the same time, the reputation of the outgroup did affect allocations, and the three majors that served as outgroups differed significantly in their reputations. The most plausible explanation of this seemingly contradictory set of results is that departmental reputation was a more fine-grained measure of how individual subjects perceived the particular outgroup, and therefore the variance in individuals' perceptions of reputations mapped more closely onto individual allocations. While reputations varied systematically across departments, the variance within and across departments was required to predict allocations.

GENERAL DISCUSSION

The effects of organizational identification on cooperation appear to depend on the context in which decisions to cooperate occur. A key contextual feature studied in this paper is subgroup characteristics—particularly subgroup norms and reputations—in a dilemma in which individuals, subgroups, and a larger collective each hold distinct interests. In study one, when

members of different organizations formed the two subgroups in the dilemma, higher organizational identification caused lower cooperation with the collective (and higher cooperation with the subgroup) when the opposing organization had a purportedly individualistic culture and reputation. This interpretation was supported by the results of study two, which directly tested subgroup reputation as a moderating influence on organizational identification. In study two, members of multiple departments possessing different reputations within a single organization formed the subgroups in the dilemma, with the collective boundary representing the organization. Organizational identification had a negative effect on collective cooperation, and a corresponding positive effect on subgroup cooperation, when decision makers perceived the opposing subgroup to have an individualistic reputation. Both studies demonstrated conditions under which organizational identification had a negative effect on cooperation in a collective endeavor. As such, the results suggest limitations to the benefits organizations should expect to accrue from members' identification with the organization.

Each participant belonged to multiple groups with distinct interests, a phenomenon ubiquitous in organizations but rarely studied by social dilemma researchers. Including multiple groups in the design of the experiment helps to avoid misinterpreting group-interested decisions as self-interested (Homan, 1950). For example, in both studies, the subgroup was increasingly the target of resource allocations as organizational identification increased when the opposing subgroup consisted of University of Chicago subjects (study one) or had an individualistic reputation (study two). It is not clear where these resources would have gone had subjects only had the private and collective accounts as allocation options. If allocating resources *away* from

the collective and *to* the subgroup were both important, allocations to the private account may have been higher under these conditions had there been no subgroup account. If this allocation pattern were to occur, then decisions would appear to be self-interested when they may be driven by interest in the subgroup.

The nested social dilemma paradigm (Wit & Kerr, 1994) is useful for studying intergroup relations in a social dilemma context. Studying more than a single group to determine the effects of distinct subgroup interests introduces a realistic complexity that allows new empirical questions to be tested. Other factors that have been found to increase cooperation in single-group social dilemmas, such as communication or the framing of the dilemma, might be tested within this paradigm to determine their effects when subgroup interests are considered. In addition to the current paradigm, many other configurations of multiple group boundaries remain to be studied, including more than two groups nested within each other, and two or more groups that are not configured hierarchically.

Limitations of these studies include a lack of manipulation checks, which were excluded to avoid influencing the salience of the various group boundaries evoked by the allocation decision. The small sample in study two was also a drawback because it allowed insufficient statistical power to remain a potential explanation for some of the insignificant effects. The primary advantage of using experiments to study allocation decisions is that random assignment allows the identification of causal relationships by controlling the extraneous factors that otherwise cannot be ruled out as potential confounds. Nevertheless, this methodology also raises justifiable questions about the external validity of the results. This is particularly true in study 2,

in which participants were undergraduate students. While always a concern, using real group boundaries to structure the nested social dilemma increased the ecological validity of the manipulations and provided a relatively rich operationalization of group boundaries. The psychological processes evoked by the norms and reputations of subjects' schools and departments, and the effects caused by these psychological processes, should be more generalizable to other real groups than if experimentally-created group boundaries had been used. Consistent findings across the two studies reported in this paper further boost confidence in the robustness of these phenomena.

This research has several practical implications for organizations. While organizational members often advocate actions that are in the best interest of the organization, much of their day-to-day behavior fosters differentiation and competition between various organizational subgroups. This is not surprising given the formal and informal mechanisms that encourage subculture formation, such as rewards for subgroup performance (e.g., for teams or divisions), norms to support one's local team members (Trice & Beyer, 1993), and physical arrangements that put subgroup members in close proximity, facilitating cohesion within subgroups. Increasing demographic diversity (Johnston & Packer, 1987), a focus on self-managed work teams (Mohrman, Cohen, & Mohrman, 1995), and the externalization of the workforce (Pfeffer & Baron, 1988) are examples of more macro organizational trends that may provide subgroup boundaries within which subcultures emerge. But what are the consequences of subgroup cooperation for the larger organization?

As Brewer and Schneider (1990) noted, cooperation within subgroups, while an

improvement if it replaces self-interested behavior, may instead come at the expense of cooperation with the larger collective. Managers should consider the likely effects of distinct subgroup boundaries and subcultures on patterns of cooperation to improve organizational decisions about how to structure and whether to emphasize subgroups. If organizational members are frequently faced with decisions in which subgroup and organizational interests are incompatible, and subgroups have distinct subcultures that include individualistic tendencies, organizational identification or subgroup identification may cause people to be more responsive to these subgroup demarcations. Further, when deciding whether to merge organizational groups, managers should consider the extent to which members of each group are likely to shift their identification to the newly-formed collective (Mottola, Bachman, & Gaertner, 1997; Rousseau, 1998). For example, joint venture management teams may suffer from having members who identify strongly with their home organization. When selecting people to participate in collaborative endeavors across either department or organization boundaries, managers should consider the potentially harmful effects of choosing people with strong departmental or organizational identification. While this advice may seem counterintuitive, if a collaborative endeavor across organizational boundaries has the potential to benefit the organization, people with strong organizational loyalties may undermine the endeavor in the name of protecting organizational interests, ultimately hurting the organization in the process. Of course, it is always prudent to guard against exploitation, but such concerns need to be balanced with concerns about reaping the potential benefits of cooperation across boundaries.

These results suggest that individualistic cultures in organizations or departments may

have consequences that reach beyond the boundaries of the group in question. Organizations with such cultures and corresponding reputations may have trouble finding partners for collaborative endeavors who are willing to fully cooperate without fear of exploitation. While a focus on competition and individual achievement may motivate some individuals within such a culture, it may simultaneously undermine attempts to collaborate with others from outside the culture. Particularly discouraging is the possibility that other organizations, when selecting members to work on a collaborative project with members of an individualistic organization, may select people with strong organizational loyalties due to the fear of exploitation by the individualistic organization. This may lead to a self-fulfilling prophecy, as such people are the ones most likely to respond to a partner with an individualistic reputation by withdrawing collective cooperation.

Taken together, these studies suggest some downsides and limitations to relying on organizational identification as a mechanism to elicit cooperation. Collaboration across department and organizational boundaries can benefit from organizational identification, but only when the groups involved are not saddled with reputations for individualistic behavior. Organizations that foster strong identification should also encourage their members to pick collaborative partners with care.

REFERENCES

Aiken, L.S., & West, S.G. 1991. Multiple Regression: Testing and Interpreting Interactions. Newbury Park, CA: Sage.

Ashforth, B. & Mael, F. 1989. Social identity theory and the organization. Academy of Management Review, 14, 20-39.

Brewer, M. 1979. In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. Psychological Bulletin, 86, 307-324.

Brewer, M.B. 1981. Ethnocentrism and its role in interpersonal trust. In M.B. Brewer & B.E. Collins (Eds.), Scientific Inquiry and the Social Sciences. New York: Jossey-Bass.

Brewer, M. 1986. The role of ethnocentrism in intergroup conflict. In S. Worchel & W. Austin (Eds.), Psychology of Intergroup Relations. Chicago: Nelson-Hall Publishers.

Brewer, M. & Schneider, S. 1990. Social identity and social dilemmas: A double-edged sword. In D. Abrams & M. Hogg (Eds.), Social Identity: Constructive and Critical Advances. Hemel Hempstead, U.K.: Harvester Wheatsheaf.

Browning, L., Beyer, J., & Shetler, J. 1995. Building cooperation in a competitive industry: SEMATECH and the semiconductor industry. Academy of Management Journal, 38, 113-151.

Byrne, J. 1995. Business Week guide to the best business schools. New York: McGraw-Hill.

Campbell, D. 1958. Common fate, similarity and other indices of the status of aggregates of persons as social entities. Behavioral Science, 3, 14-25.

Chatman, J. & Barsade, S. 1995. Personality, organizational culture, and cooperation: Evidence from a business simulation. Administrative Science Quarterly, 40 (3), 423-443.

Chen, C., Meindl, J., Hunt, R. 1997. Testing the effects of vertical and horizontal collectivism: A study of reward allocation preferences in China. Journal of Cross-Cultural Psychology, 28 (1), 44-70.

Cox, T., Lobel, S., & McLeod, P.L., 1991. Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. Academy of Management Journal, 34, 827-847.

Dawes, R. 1975. Formal models of dilemma in social decision making. In M. Kaplan & S. Schwartz (Eds.), Human judgment and decision processes: Formal and mathematical approaches.

New York: Academic Press.

Dawes, R. 1980. Social dilemmas. <u>Annual Review of Psychology</u>, 31, 169-193.

Dawes, R., & Thaler, R., 1988. Anomalies corporation. <u>Journal of Economic Perspectives</u>, 2, 187-197.

Dutton, J., Dukerich, J., & Harquail, C. 1994. Organizational images and member identification. <u>Administrative Science Quarterly</u>, <u>39</u>, 239-263.

Earley, P. C. 1989. Social loafing and collectivism. <u>Administrative Science Quarterly</u>, 34, 565-581.

Earley, P. C. 1993. East meets west meets mideast: further explorations of collectivistic and individualtistic groups. <u>Academy of Management Journal</u>, 36, 319-348.

Frank, R., Gilovich, T., & Regan, D. 1993. Does studying economics inhibit cooperation? <u>Journal of Economic Perspectives</u>, <u>7</u>, 159-171.

Friedkin, N. & Simpson, M. 1985. Effects of competition on members' identification with their subunits. <u>Administrative Science Quarterly</u>, 30, 377-394.

Gregory, K, 1983. Native view paradigms: Multiple cultures and culture conflict in organizations. <u>Administrative Science Quarterly</u>, 28, 259-376.

Hardin, G. 1968. The tragedy of the commons. <u>Science</u>, <u>162</u>, 1243-1248.

Harris, R. 1985. <u>A Primer of Multivariate Statistics</u>. New York, NY: Academic Press, Inc.

Haspeslagh, P. & Jemison, D. 1991. <u>Managing Acquisitions: Creating Value Through Corporate Renewal</u>. New York, NY: The Free Press.

Hinkle, S., Taylor, L., Fox-Cardamone, D. & Crook, K. 1989. Intragroup identification and intergroup differentiation: A multicomponent approach. <u>British Journal of Social Psychology</u>, <u>28</u>, 305-317.

Hofstede, G., 1980. <u>Culture's Consequences</u>. Beverly Hills, CA: Sage.

Hogan, E.A. & Overmyer-Day, L. 1994. The psychology of mergers and acquisitions. <u>International Review of Industrial and Organizational Psychology</u>, 9, 247-282.

Homans, G. 1950. <u>The Social Group</u>. New York: Harcourt Brace Jovanovich.

Insko, C., Schopler, J., Drigotas, S., Graetz, K., Kennedy, J., Cox, C., & Bornstein, G. 1993. The role of communication in interindividual-intergroup discontinuity. Journal of Conflict Resolution, 37, 108-138.

Isaac, R.M., Walker, J., & Thomas, S. 1984. Divergent evidence on free riding: An experimental examination of possible explanations. Public Choice, 43, 1, 113-149.

Johnston, W. & Packer, A. 1987. Worforce 2000. Indianapolis, IN: Hudson Institute.
Kramer, R. 1991. Intergroup relations and organizational dilemmas: The role of categorization processes. Research in Organizational Behavior, 13, 191-228.

Kramer, R. 1993. Cooperation and organizational identification. In J.K. Murnighan (Ed.), Social psychology in organizations (p. 244-268). Englewood Cliffs, NJ: Prentice Hall.

Kruskal, J. & Wish, M. 1991. Multidimensional Scaling. Newbury Park, CA: Sage Publications.

Kuhleman, D.M. & Marshelo, A.F. 1975. Individual differences in game motivation as moderators of preprogrammed strategy effects in prisoner's dilemmas. Journal of Personality and Social Psychology, 32, 922-931.

Lee, S. 1971. An empirical analysis of organizational identification. Academy of Management Journal, 14, 213-226.

LeVine, R. & Campbell, D. 1972. Ethnocentrism: Theories of conflict, ethnic attitudes and group behavior. New York: John Wiley.

Mael, F.A. & Tetrick, L.E. 1992. Identifying organizational identification. Educational and Psychological Measurement, 52, 813-824.

March, J. & Simon, H. 1958. Organizations. New York: John Wiley.

Marwell, G. & Ames, R. 1981. Economists free ride, does anyone else? Journal of Public Economics, 15, 295-310.

Messick, D. & Brewer, M. 1983. Solving social dilemmas: A review. In L. Wheeler & P. Shaver (Eds.), Review of personality and social psychology. Beverly Hills, CA: Sage.

Messick, D. & McClintock, C. 1968. Motivational basis of choice in experimental games. Journal of Experimental Social Psychology, 4, 1-25.

Mohrman, S., Cohen, S., & Mohrman, A. 1995. Designing Team-based Organizations: New

Forms for Knowledge Work. San Fransisco: Jossey-Bass Publishers.

Mottola, G., Bachman, B. & Gaertner, S. 1997. How groups merge: The effects of merger integration patterns on anticipated commitment to the merged organization. Journal of Applied Social Psychology, 27, 1335-1358.

O'Reilly, C., & Chatman, J., 1996. Culture as social control: Corporations, cults, and commitment. Research in Organizational Behavior, 18, 157-200.

Pfeffer, J., 1994. Competitive Advantage Through People: Unleashing the Power of the Work Force. Boston, MA: Harvard Business School Press.

Pfeffer, J. & Baron, J. 1988. Taking the workers back out: Recent trends in the structuring of employment. In B. Staw and L. Cummings (Eds.), Research in Organizational Behavior. Greenwich, CT: JAI Press.

Pratt, M., 1998. To be or not to be: Central questions in organizational identification. In D. Whetten and P. Godfrey (Eds.) Identity in Organizations: Building Theory Through Conversations. Thousand Oaks, CA: Sage Publishing.

Robinson, S., 1996. Trust and breach of the psychological contract. Administrative Science Quarterly, 41, 574-599.

Rotondi, T. 1975. Organizational identification: Issues and implications. Organizational Behavior and Human Performance, 13, 95-109.

Rousseau, D. 1998. Why workers still identify with organizations. Journal of Organizational Behavior, 19, 217-233.

Schopler, J. & Insko, C. 1992. The discontinuity effect in interpersonal and intergroup relations: Generality and mediation. In W. Stroebe & M. Hewstone (Eds.), European Review of Social Psychology, 3, 121-151. New York: John Wiley and Sons.

Simon, H. 1945. Administrative Behavior. New York, NY: Free Press.

Sumner, W. 1906. Folkways. Boston: Ginn.

Tajfel, H. 1978. Social categorization, social identity, and social comparison. In H. Tajfel (Ed.), Differentiation between social groups: Studies in the social psychology of intergroup relations. London: Academic Press.

Tajfel, H. 1982. Social psychology of intergroup relations. Annual Review of Psychology, 33, 1-

39.

Triandis, 1995. Individualism and Collectivism. Boulder, CO: Westview.

Trice, H. & Beyer, J. 1993. The cultures of work organizations. Englewood Cliffs, NJ: Prentice-Hall.

Turner, J. 1982. Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), Social Identity and Intergroup Relations, 15-40. Cambridge: Cambridge University Press.

Turner, J. 1987. Rediscovering the social group: A self-categorization theory. New York: Basil Blackwell Inc.

Von Neumann, J., & Morgenstern, O., 1944. Theory of games and economic behavior. Princeton, NJ: Princeton University Press.

Wagner, J. A. 1995. Studies of individualism-collectivism: Effects on competition in groups. Academy of Management Journal, 38, 152-172.

Wish, M., Deutsch, M., & Biener, L. 1970. Differences in conceptual structures of nations: An exploratory study. Journal of Personality and Social Psychology, 16, 361-373.

Wit, A. & Kerr, N. 1994. Social categorization and cooperation in nested social dilemmas. Working paper, University of Leiden, The Netherlands.

Wright, P. 1987. Spycatcher. New York, NY: Dell Publishing.

TABLE 1

Mean Allocation to Collective, Subgroup, and Private Accounts by Subgroup Composition and
Organizational Identification for Kellogg Subjects in Study 1

| | Subgroup composition | | | |
Org. Identification	Same school, same class	Same school, different class	Outside of school	Rival school
Strong identification				
Allocation to:				
Collective	3.55_a	2.98_{ab}	2.13_{ab}	1.43_b
Subgroup	0.50_a	1.15_{ab}	1.22_{ab}	2.55_b
Private	0.95	0.87	1.65	1.02
N	10	14	15	15
Weak identification				
Collective	2.25	1.93	2.04	2.60
Subgroup	1.46	1.66	1.80	0.53
Private	1.29	1.41	1.16	1.87
N	15	13	17	13

Note: Means within each row not sharing a common subscript differ significantly at the .05 level
by Newman-Keuls post hoc pairwise comparisons. Means without subscripts do not differ
significantly from others in the same row.

TABLE 2

Correlations Between Organizational Identification (OI) and Allocations to the
Collective (C), Subgroup (S), and Private (P) Accounts
by Subgroup Composition for Kellogg Subjects in Study 1

	Subgroup composition			
	Same school, same class	Same school, different class	Outside of school	Rival school
Kellogg only				
Correlation between:				
OI and C	.48*	.36+	.00	-.27
OI and S	-.36+	-.33+	-.15	.55**
OI and P	-.25	-.10	.17	-.25

Note: +p<.10; *p<.05; **p<.01

TABLE 3
Correlations for Study 2

	Variable	1	2	3	4	5	6
1	Subject's major (0 = econ.; 1 = psych.						
2	Cooperative Orientation (0 = no; 1 = yes)	.23					
3	Department Identification	.35*	-.01				
4	Organizational Identification	-.02	-.10	.20			
5	Cooperative ingroup reputation	.53*	.05	.24	.02		
6	Cooperative outgroup reputation	.13	.04	.04	.08	.62*	
7	Individualistic ingroup reputation	-.48*	-.11	-.26	-.12	-.51*	-.12
8	Individualistic outgroup reputation	.06	-.07	.07	-.18	-.13	-.56*
9	Private allocations	-.25	-.39*	.02	-.08	-.19	-.14
10	Subgroup allocations	.10	.19	.05	.12	-.01	-.15
11	Collective allocations	.20	.28*	-.03	.02	.21	.23
12	Collective/subgroup allocation ratio	.11	.12	-.06	-.01	.14	.16

		7	8	9	10	11
8	Individualistic outgroup reputation	.36*				
9	Private allocations	.25	.23			
10	Subgroup allocations	-.07	.20	-.26		
11	Collective allocations	-.23	-.32*	-.86*	-.27*	
12	Collective/subgroup allocation ratio	-.14	-.22	-.77*	-.75*	.95*

Note: *p<.05

TABLE 4

OLS Regressions for Allocation Decisions in Study 2

Variable	Private Allocation	Collective Allocation Ratio	Collective Allocation Ratio	Collective Allocation Ratio
Main effects:				
Cooperative Orientation (0 = no; 1 = yes)	-.37*	.09	.00	-.10
Individualistic ingroup reputation	.17	-.08	-.12	-.14
Individualistic outgroup reputation	.13	-.20	-.17	-.21
Department Identification	.07	-.05	-.04	.01
Organizational Identification	-.07	-.05	-.00	-.05
Interaction effects:				
Department Identification x Individualistic outgroup reputation	-.12	.13		.45*
Org. Identification x Individualistic outgroup reputation	-.03		-.36*	-.61***
Overall Model F	2.14	0.54	1.33	2.34*
Degrees of freedom	47	36	36	35
Adjusted R^2	.13	.00	.05	.18

Note: *$p<.05$, **$p<.01$, ***$p<.001$

FIGURE 1
Study 1: Effect of Organizational Identification on
Collective Allocations by Outgroup Condition
(Kellogg Subjects Only)