

Effects of Accountability to Group Members and Outcome Interdependence on Task Behavior and Interpersonal Contextual Behavior

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This laboratory study tested motivational effects of accountability to group members and outcome interdependence on task behavior and interpersonal contextual performance such as helpfulness. Both task and interpersonal contextual behavior were higher when group members were accountable to each other. Interpersonal contextual behavior was also higher when group members were recognized for group rather than for individual performance. Task behavior was not significantly affected by outcome interdependence. These results suggest that accountability to group members can motivate task and interpersonal contextual behavior. They also suggest that although outcome interdependence can motivate interpersonal contextual behavior, it might not motivate task behavior.

INTRODUCTION

The distinction offered by Borman and Motowidlo (1993) between task performance and contextual performance differentiates between these two behavior patterns according to the way they can contribute to or detract from organizational effectiveness. Behaviors that represent high task performance levels presumably contribute to organizational effectiveness through their effects on the technical core by directly affecting the production of organizational goods and services. Behaviors that represent high contextual performance levels, on the other hand, presumably contribute to organizational effectiveness by enhancing or maintaining the social, organizational, and psychological environment (or “context”) in which the technical core operates.

Borman and Motowidlo (1993) suggested that task performance and contextual performance might be related to different trait antecedents and that task performance is probably best predicted by factors related to cognitive ability while contextual performance is probably best predicted by factors related to personality characteristics. Results of studies by Motowidlo and Van Scotter (1994) and Van Scotter and Motowidlo (1996) provide some evidence in support of the hypothesis that contextual performance is best predicted by personality factors. They found that task performance correlated more highly with variables such as experience and job knowledge while contextual performance correlated more highly with personality factors such as dependability, internal locus of control, extraversion, and agreeableness.

Because the distinction between task and contextual performance grew out of concerns related to selection research, the main antecedent variables of interest have been individual differences in

characteristics potentially useful for guiding staffing decisions (Borman & Motowidlo, 1997; Borman, Penner, Allen & Motowidlo, 2001; Hogan, Rybicki, Motowidlo, & Borman, 1998; Witt, Kacmar, Carlson & Zivnuska, 2002). Selection processes might not be the only way that contextual performance can be managed in work organizations, however. Motivational processes might offer other effective strategies. So far, though, most research on motivation in work settings has focused on task performance, especially research based on goal setting theory (e.g., Locke, Saari, Shaw, & Latham, 1981) or expectancy theory (e.g., Mitchell, 1974). The general aim of the research reported here is to develop more information about motivational antecedents of contextual performance.

Contextual performance includes behavioral elements such as helping and cooperating with others, volunteering for additional task activities, persisting with extra effort, following rules and procedures, and endorsing organizational objectives (Borman & Motowidlo, 1993). The helping and cooperating elements, which have also been called interpersonal facilitation (Van Scotter & Motowidlo, 1996), altruism or helpfulness (Organ, 1997), and interpersonal citizenship performance (Coleman & Borman, 2000), are particularly relevant for our purposes in this study because of their potential effects on group processes. This behavioral dimension should lead, in general, to more effective interpersonal interaction in groups since this dimension includes behavior such as helping and cooperating as well as encouraging others, being friendly, and being personally supportive. The distinction between task performance and this interpersonal dimension of contextual performance recalls the classic distinction between task roles and maintenance or socio-emotional roles in groups (Bales & Slater, 1955; Benne & Sheats, 1948; Organ, 1997). Our concern in this report, however, is not with the specialized roles adopted by different group members, but with the degree to which the same group member might contribute by performing both task and interpersonal contextual activities effectively.

Factors that affect group processes will become increasingly important if, as widely speculated, organizations evolve into more organic and more team-based structures in response to rapidly accelerating changes in their technological, economic, cultural, and business environments (Motowidlo & Schmit, 1999). The basic assumption behind this speculation is that environmental conditions for organizations are changing so quickly that it is becoming more and more difficult to predict technological opportunities, customers' demands, and resource availability far enough in advance to rely on standard operating procedures for dealing with them. To adapt to this environmental turbulence, organizations will have to become less bureaucratic, flatter, less centralized, and more reliant upon relatively autonomous teams that can react nimbly to changes in environmental demands and opportunities. This means that people will have to work more intensively and more cooperatively with others in teams that will often include individuals from different functional areas with different perspectives, priorities, and sets of functional knowledge and expertise. Effectiveness in such teams will demand well-developed interpersonal skills and will put a premium on interpersonal contextual behavior.

One implication of structuring organizations according to teams in this way is that the teams will tend to be self-managed. Instead of relying on direct supervision as in traditional bureaucratic organizations, team members will have to enforce patterns of individual behavior within the team themselves out of a sense of mutual accountability. This means team members will essentially be answerable to each other. Another implication is that reward processes will probably place more emphasis on recognition for team performance and accomplishments and less for individual performance and accomplishments. Both accountability to fellow team members and recognition for team rather than individual performance evoke motivational processes that might affect individual task behavior and interpersonal contextual behavior in teams. For these reasons, the study reported here tests effects of accountability (whether or not group members are answerable to each other) and outcome interdependence (whether group members are recognized for their performance as individuals or as groups) on task behavior and interpersonal contextual behavior in small groups.

Accountability

Accountability is "the implicit or explicit expectation that one may be called on to explain one's beliefs, feelings, and actions to others" (Lerner and Tetlock, 1999, p. 255). This expectation is thought to

motivate people to “maintain the approval and respect of those to whom they are accountable” (Tetlock, 1985, p. 309). One way that accountability has been manipulated in order to arouse the motive to secure others’ approval is by informing people that others will be evaluating them.

Much of the empirical literature on accountability deals with its effects on how people form judgments, decisions, or opinions about matters of interest to the audience to whom they are accountable (see Lerner and Tetlock, 1999, for a recent review). Several studies have shown that when people who are accountable to a particular audience know the audience’s position, they tend to shift their own views in the direction that they believe will conform to the audience’s views. When people do not know what view their audience holds, results of accountability manipulations are more complicated, but some evidence indicates that people often tend to engage in preemptive self-criticism, “that is, they think in more self-critical, integratively complex ways in which they consider multiple perspectives on the issue and try to anticipate the objections that reasonable others might raise to positions they might take” (Lerner & Tetlock, 1999, p. 257). Thus, when accountable people have to form judgments, decisions, or choices, they might try to secure the approval of the audience to whom they are accountable either through conformity or preemptive self-criticism, depending on whether or not they know what views the audience holds.

Additional research has examined how accountability affects organizational behavior beyond decision-making. This research shows that the presence of accountability can lead to increase organizational citizenship behavior in some instances (Royle, Hall, Hochwarter, Perrewé & Ferris, 2005). Accountability to others has also been shown to affect behavior such that individuals increase their level of OCB to appear, in some cases, more favorable to those they are held accountable to (Hall, Frink, Ferris, Hochwarter, Kacmar, & Bowen, 2003; Mitchell, Hopper, Daniels, Falvey & Ferris, 1998).

This empirical literature assumes that accountable people can form a judgment, decision, or choice isolated from the audience to whom they are accountable, knowing they will not have to face their audience until some time later. Under these circumstances, research shows that accountable people are motivated to shift their views in order to secure approval before they actually encounter the audience that will evaluate them. Circumstances surrounding expectations of accountability to fellow group members, however, are somewhat different. In this case accountable people must encounter and interact with the audience to whom they are accountable (i.e., their fellow group members) before the audience formally evaluates them. Of course, their fellow group members are likely to be forming their evaluation while they interact with the accountable individuals even if they do not actually reveal the nature of their evaluation until some time later. When group members expect to be formally evaluated by each other after some period of interaction, they can try to secure their fellow group members’ approval while interacting with them. This introduces the possibility of two other strategies for securing the approval of the evaluating audience. First, we expect that accountable group members will try to be personally supportive, pleasant, courteous, helpful, and cooperative while interacting with fellow group members. Second, we expect that they will also work more diligently and conscientiously on the group task. Consequently, we predict this form of accountability to fellow group members will increase both interpersonal contextual behavior and task behavior, because both types of behavior might reasonably be adopted as strategies for securing the approval of fellow group members.

Outcome Interdependence

Outcome interdependence is the extent to which outcomes of work such as rewards and goal attainment depend on collective performance (Wageman, 1995). When rewards are based solely on individual performance, outcome interdependence is low; conversely, when rewards are based on the performance of the group as a whole, outcome interdependence is high.

When people are recognized for their own individual performance, they should be more confident that their individual effort will lead to desirable outcomes contingent upon performance than when they are recognized for group performance. When outcomes are based on group performance, beliefs about the probability of attaining rewards contingent on individual effort should be less certain because an individual has less control over group performance than over his or her own individual performance.

Therefore, an individual's task motivation should be higher when individual performance is recognized and rewarded than when only group performance is recognized and rewarded (Hayes, 1976; Lawler, 1990).

Results of several studies support the argument that individual task performance is lower when desirable outcomes are based on group performance than when they are based on individual performance. In comparison to rewards based on individual productivity, rewards based on group productivity have been shown to lower performance on tasks involving physical and cognitive effort (Harkins & Petty, 1982; Latane, Williams & Harkins, 1979; Petty, Harkins, Williams & Latane, 1977), a number-guessing task (Miller & Hamblin, 1963), and a card-sorting task (London & Oldham, 1977). Overall, these results indicate that individuals are motivated to exert more effort on tasks when they are rewarded individually or when they believe they can significantly affect the group's performance.

Less empirical evidence is available regarding the effect of outcome interdependence on interpersonal contextual behavior. There is some conceptual basis, however, for expecting that when individuals are recognized for group performance, they are likely to perceive the task itself as more interdependent (Wageman, 1995) and for that reason come to regard friendliness, helping, and cooperation as appropriate patterns of behavior in that task environment (Tjosvold, 1984). There is also some empirical support for the idea that outcomes based on group performance lead to higher levels of interpersonal contextual performance than outcomes based on individual performance (Shea & Guzzo, 1989). For instance, Shi, Luh, and Kleinman (1994) found that under a group reward structure, decision-makers were more willing to cooperate when working on tasks requiring different patterns of information sharing. In addition, Rosenbaum, Moore, Cotton, Cook, Heiser, Shovar, and Gray (1980) found that recognizing individuals for their individual performance led to less cooperative behavior in a tower building exercise, to the point where individuals were actually sabotaging the work of others. Some empirical evidence, however, is not entirely consistent with these results. Wageman (1995) and Wageman and Baker (1997) found that it is task interdependence, not outcome interdependence, that influences cooperative behavior. In a field setting involving service technicians, Wageman (1995) found that task interdependence was related to self-report measures of cooperation. Although effects of outcome interdependence were in the same direction, they did not reach statistical significance. On balance, however, conceptual arguments and empirical results are at least strong enough to justify testing the possibility that interpersonal contextual behavior in groups is higher under conditions of high outcome interdependence – that is when it is group performance, not individual performance, is recognized.

Hypotheses

The purpose of the study reported here is to test six hypotheses about the effects of accountability to fellow group members and outcome interdependence on interpersonal contextual behavior and task behavior as well as to test whether these motivational antecedents affect these different behavioral patterns in the same way. The hypotheses about the effects of accountability follow:

1. Interpersonal contextual behavior is higher when group members are accountable to each other than when they are not.
2. Task behavior is higher when group members are accountable to each other than when they are not.

Given that we expect accountability to group members to affect task behavior and interpersonal contextual behavior in similar ways, we further hypothesize that:

3. Being accountable to group members does not affect task behavior and interpersonal contextual behavior differently.

The hypotheses for the expected effects of outcome interdependence on task and contextual behavior are as follows:

4. Interpersonal contextual behavior is higher when group members are recognized for group performance than when they are recognized for individual performance.
5. Task behavior is lower when group members are recognized for group performance than when they are recognized for individual performance.

Given that we expect outcome interdependence to affect interpersonal contextual behavior and task behavior differently, we further hypothesize that:

6. Interpersonal contextual behavior is significantly, more positively affected than task behavior when group members are recognized for group performance rather than individual performance.

METHOD

Sample and Experimental Design

A total of 240 undergraduate students who were enrolled in a large introductory management course at a southern university participated in this study in return for extra course credit. Their average age was 20.68 (SD = 2.43). The sample was evenly divided between women and men.

Students participated in a laboratory experiment in groups of four with two women and two men assigned to each group. The experimental design crossed two levels of accountability (group members either were or were not accountable to each other) with two levels of outcome interdependence (either high interdependence in which group performance was recognized or low interdependence in which individual performance was recognized). Fifteen groups of four students were assigned to each of the four treatment conditions.

Procedure

The experimental task featured a business problem that allowed group members to interact but did not require them to interact. Participants could complete the task either by working independently and pooling results of their individual efforts at the end of the work period or by working collaboratively and actually accomplishing the task as a group.

Participants read a short memo that described the experimental task. It instructed them to imagine they were employed by a computer company as a manager for one of four departments -- educational software, computer games, office software, or sports software -- and were assigned to a task force responsible for developing ideas for computer software products. The company currently had no software products, so any ideas they generated would be new to the company. Participants were recorded on videotape while they worked on the task for 15 minutes.

Experimental Manipulations

After they read the memo describing the task, participants in the high accountability condition were told that after completing the task, they would be asked to evaluate each of their fellow group members who would also be evaluating them. Participants in the low accountability condition were not told anything about evaluating each other.

Participants in the condition of high outcome interdependence were told that the performance of interest was group achievement, which the experimenter would assess. They were also told the experimenter would post a list showing how well each group performed. Participants in the condition of low outcome interdependence were told that the performance of interest was individual achievement, which the experimenter would assess. They too were told the experimenter would post results on a list, this time showing how well each individual member of the group performed.

At the end of the experiment, participants indicated how much they agreed with the statement, "I expected the group to evaluate my performance," on a seven-point scale that ranged from 1 = strongly disagree to 7 = strongly agree to check the effectiveness of the accountability manipulation. The mean response was 5.72 (SD = 1.14) in the high accountability condition and 4.13 (SD = 1.60) in the low

accountability condition, indicating a significant effect ($t = 8.92, p < .01$) in the expected direction and therefore showing support for the effectiveness of the experimental accountability manipulation.

Participants also completed a manipulation check for outcome interdependence. It was a seven-point, bi-polar scale anchored with “my primary concern was my own individual performance” at the low end and “my primary concern was the performance of my group” at the high end. The mean response was 4.58 ($SD = 1.85$) in the condition of low outcome interdependence (recognition for individual achievement) and 5.58 ($SD = 1.36$) in the condition of high outcome interdependence (recognition for group achievement), indicating a significant effect ($t = 4.77, p < .01$) in the expected direction and therefore showing support for the effectiveness of the experimental manipulation of outcome interdependence.

Dependent Variables

The dependent variables were interpersonal contextual behavior and task behavior. Both were rated by graduate students who were blind to experimental condition. They watched all the videotapes and rated each research participant for either task behavior or interpersonal contextual behavior. It took approximately 15 hours for each graduate student to watch and rate all the videotaped group sessions.

To assess interpersonal contextual behavior, two graduate students independently rated how frequently each group member performed each of five interpersonal behaviors on a 5-point scale ranging from 1 = never to 5 = always. The behaviors were “show a friendly interest in others”, “seem concerned for the feelings of others”, “express a pleasant and upbeat attitude”, “try to help and support others on the team”, and “cooperate as a team member”. This scale is based on a modified interpersonal facilitation scale (Van Scotter & Motowidlo, 1996). The original scale included behavior such as praising co-workers, cooperating, supporting or encouraging co-workers and displaying a cheerful, confident outlook. We modified the scale to reflect the kinds of interpersonally supportive things people could be expected to do in this experimental setting. We summed the five ratings given by each rater for each group member ($\alpha = .96$). The correlation between the two raters on this total score was .72 which, when adjusted according to the Spearman-Brown prophesy formula, yields an inter-rater reliability estimate of .85 for two raters combined. We summed scores for the two raters to derive a single interpersonal contextual behavior score for each group member.

To assess task behavior, two different graduate students independently rated how frequently each group member performed each of five task behaviors on a 5-point scale ranging from 1 = never to 5 = always. The behaviors were “stay focused on the task at hand”, “concentrate fully on generating ideas”, “show determination in getting the task done”, “show conscientiousness and diligence in accomplishing the task”, and “exert effort on task requirements”. These particular behavioral items were also chosen because results of pilot studies showed they represent the kinds of task-related things people could be expected to do in this experimental setting. Again we summed the five ratings given by each rater for each group member ($\alpha = .92$). The correlation between the two raters on this total score was .49 which, when adjusted according to the Spearman-Brown prophesy formula, yields an inter-rater reliability estimate of .66 for two raters combined. We summed scores for the two raters to derive a single task behavior score for each group member.

We decided to rely on ratings based on behavioral items to measure task behavior instead of attempting to count the number of ideas each group member produced because the number of ideas produced is affected by irrelevant factors that could obscure effects of the experimental manipulations. For instance, participants could either write down their ideas or announce them orally to the group and in either case, individuals who develop long explanations or descriptions can produce fewer ideas in the available time than individuals who are more succinct. Also, some individuals might need more time to write their ideas or find it more difficult to write them than to announce them orally. If participants do elect to announce their ideas orally, opportunities for participating in group discussion are likely to be constrained by interpersonal dynamics because generally only one member can effectively speak to the group at a time. Thus, a count of number of items produced could be affected by irrelevant sources of variance associated with whether participants choose to write their ideas or suggest them orally and with

individual differences in verbal fluency, writing skill, and dominance. Using ratings of behavioral items avoided inclusion of this irrelevant variance.

The score for task behavior correlated .37 ($p < .05$) with the score for interpersonal contextual behavior. This correlation is lower than the individual scales' reliability estimates and lower even than correlations between ratings by single raters rating the same type of behavior. Consequently, this pattern of correlations provides evidence of both discriminant and convergent validity for the behavior measures.

RESULTS

We computed a two-way analysis of variance (ANOVA) with two levels of accountability and two levels of outcome interdependence as treatment factors and with interpersonal contextual behavior as the dependent variable. The analysis yielded significant effects for both accountability ($F(1,236) = 23.41, p < .01, \eta^2 = .08$) and outcome interdependence ($F(1,236) = 10.21, p < .01, \eta^2 = .04$). As shown in Table 1, interpersonal contextual behavior was higher in the high accountability condition ($M = 38.49, SD = 6.72$) than in the low accountability condition ($M = 32.65, SD = 11.99$). Interpersonal contextual behavior was also higher in the high outcome interdependence condition (with recognition for group performance) ($M = 37.50, SD = 7.12$) than in the low outcome interdependence condition (with recognition for individual performance) ($M = 33.64, SD = 12.16$). These results support both hypothesis 1 and hypothesis 4.

TABLE 1
PATTERNS OF MEANS FOR INTERPERSONAL CONTEXTUAL BEHAVIOR

	Low Accountability	High Accountability	
Low Outcome Interdependence	Mean = 28.73 SD = 14.45	Mean = 38.55 SD = 6.37	Mean = 33.64 SD = 12.16
High Outcome Interdependence	Mean = 36.57 SD = 7.06	Mean = 38.43 SD = 7.11	Mean = 37.50 SD = 7.12
	Mean = 32.65 SD = 11.99	Mean = 38.49 SD = 6.72	

NOTE: $n = 60$ individuals for each cell

Results of this ANOVA also revealed a significant interaction effect ($F(1,236) = 10.84, p < .01, \eta^2 = .04$). Table 1 shows that although accountability increased interpersonal contextual behavior under both conditions of outcome interdependence, it had a stronger effect when outcome interdependence was low (recognition for individual performance) than when outcome interdependence was high (recognition for group performance).

We computed another ANOVA with the same treatment factors but with task behavior as the dependent variable. This analysis yielded significant effects for accountability ($F(1,236) = 8.62, p < .01, \eta^2 = .04$) but not for outcome interdependence ($F(1,236) < 1.0$). Table 2 shows that task behavior was higher in the high accountability condition ($M = 37.97, SD = 6.90$) than in the low accountability condition ($M = 35.22, SD = 7.56$). These results support hypothesis 2 but not hypothesis 5.

To simplify a comparison between effect sizes, we calculated correlations between the experimental manipulation of accountability to group members (coded as 1 for high accountability and 0 for low accountability) and the two scores on the behavioral measures, in order to test hypothesis 3. Accountability correlated .19 ($p < .01$) with task behavior and .29 ($p < .01$) with interpersonal contextual behavior. The difference between these correlations was not significant ($t(237) = 1.42$) at $p < .05$. This result supports hypothesis 3 that accountability would not affect task and interpersonal contextual behavior differently.

TABLE 2
PATTERNS OF MEANS FOR TASK BEHAVIOR

	Low Accountability	High Accountability	
Low Outcome Interdependence	Mean = 35.10 SD = 6.59	Mean = 37.38 SD = 7.62	Mean = 36.24 SD = 7.19
High Outcome Interdependence	Mean = 35.35 SD = 8.47	Mean = 38.57 SD = 6.11	Mean = 36.96 SD = 7.53
	Mean = 35.22 SD = 7.56	Mean = 37.97 SD = 6.90	

NOTE: n = 60 individuals for each cell

Similarly, we calculated correlations between the experimental manipulation of outcome interdependence (coded as 1 for group recognition and 0 for individual recognition) and the two scores on the behavioral measures, in order to test hypothesis 6. Outcome interdependence was correlated .05 (ns) with task behavior and .19 ($p < .01$) with interpersonal contextual behavior. The difference between these correlations is significant ($t(237) = 1.96$) at $p < .05$ indicating that the effect of outcome interdependence on interpersonal contextual behavior is more positive than its effect on task behavior. This supports the general expectation that motivational effects of outcome interdependence are different for task behavior and interpersonal contextual behavior and, in particular, that group recognition has a stronger positive effect on interpersonal contextual behavior than on task behavior.

As mentioned, however, the estimated reliability of the task behavior scale (.66) was lower than the estimated reliability of the interpersonal contextual behavior scale (.85). Accordingly, we examined the possibility that the difference found between effects of outcome interdependence on these two variables might be attributed to the difference in their reliabilities. We adjusted correlations with outcome interdependence according to the correction for attenuation to estimate what the effect sizes would be if both task behavior and interpersonal contextual behavior were measured with perfect reliability. The adjusted correlation between outcome interdependence and task behavior is .06 and the adjusted correlation between outcome interdependence and interpersonal contextual behavior is .21. Thus, the difference between effect size estimates is no smaller after correcting for differences in reliability. Therefore, differences between the effect of outcome interdependence on task behavior and its effect on interpersonal contextual behavior cannot be explained by differences in the reliabilities of the two behavior scores.

DISCUSSION

Results of this study show that holding people accountable to other group members can motivate both task behavior and interpersonal contextual behavior in small groups. When group members expect to be evaluated by each other, they tend to be friendlier, more supportive, and more cooperative, probably in order to secure the approval of their fellow team members. They also tend to work more diligently and conscientiously on the group task, again, probably, in order to secure the group's approval. These results suggest that if applied to self-managed groups in real work organizations, formal procedures for group members to evaluate each other might have beneficial effects on both task behavior and interpersonal contextual behavior.

In addition, results show that recognizing people for group performance rather than for individual performance also motivates them to be friendlier, more supportive, and more cooperative with their fellow group members. This suggests that recognition, reward, and incentive systems that focus on group performance might be another useful way to encourage interpersonal contextual behavior. Our results failed to show the expected negative effect of group recognition on task behavior. In fact, if there was any

effect at all, our data showed an insignificant and trivially small difference in the direction suggesting higher levels of task behavior under group recognition. Although our results do not support the hypothesis that task behavior is higher under conditions of individual recognition, they do support the more general idea that recognizing group behavior has a stronger positive effect on interpersonal contextual behavior than it does on task behavior. This opens up the intriguing possibility that the same intervention might have different motivational effects on task behavior and interpersonal contextual behavior.

The inter-rater reliability estimate for task behavior was lower than the inter-rater reliability estimate for interpersonal contextual behavior. According to reports from the graduate students who served as raters in this study, differences in how readily and unambiguously task and interpersonal contextual behaviors could be observed and interpreted might account for the difference in reliability. After completing their ratings of interpersonal contextual behavior, raters told the experimenter that differences between participating group members on these interpersonal behaviors were quite striking. For instance, some group members introduced themselves to others and asked how well they did on an exam in the large management course they all shared (i.e., “showed a friendly interest in others”) while other group members did not ask about the other members of the group. Also, some individuals encouraged other group members when they suggested ideas by telling them “hey, that’s a great idea” or “that’s really good, that could actually work” (i.e., “try to help and support others on the team”). Alternatively, other group members tended to discount others’ ideas with statements such as “that’s not a good idea, it won’t work”.

Raters who rated task behavior indicated that although differences between group members on many of the task behaviors seemed quite clear and obvious to them, some behaviors were more difficult to evaluate. As an example of a behavior that seemed relatively clear and unambiguous, some group members worked on the task diligently right up until the alarm on the timer went off. They asked if they could “just finish this last idea” when the experimenter entered the room. Other group members spent time visually exploring the experimental room and appeared obviously unengaged in the task, and some actually picked up the timer to count down the final few seconds aloud before the alarm sounded. But because the task involved some amount of thinking, other behaviors that might indicate task behavior were harder to evaluate. For instance, if a group member was sitting and looking at the ceiling, it was not clear whether he or she was or thinking deeply about a product idea or just daydreaming. Perhaps the ambiguity associated with actions such as these is the reason the inter-rater reliability estimate for task behavior was lower than it was for interpersonal contextual behavior.

Whatever its source, this difference in reliability estimates cannot explain the difference in effects of outcome interdependence on task behavior and interpersonal contextual behavior. The difference in effect sizes remains even after they are adjusted to correct for differences in reliability.

The two independent variables manipulated in our experiment might be similar in some respects because both might influence the degree to which individuals think of themselves as part of a group. Essentially, therefore, both accountability and outcome interdependence as manipulated in our experiment might contribute to group cohesiveness. In fact, these potential effects on cohesiveness might be an underlying explanation for our experimental results. Perhaps the reason group members were more supportive and cooperative with each other, both when held accountable to each other and when recognized for group rather than individual behavior, is that both experimental manipulations induced a stronger sense of group identity and cohesiveness, which caused group members to express stronger feelings of personal regard for each other. The experimental task was only 15 minutes long, however, and we might reasonably wonder whether this is enough time for feelings of cohesiveness to develop and have such effects. Nevertheless, we cannot rule out the possibility that effects of our experimental manipulations on task and interpersonal contextual behavior are mediated by group cohesiveness, and this might be a worthy question to pursue in subsequent studies.

The distinction between task performance and contextual performance originally emerged from concerns about research in personnel selection and effects of individual difference characteristics on job performance. Our study extends these concerns to include motivational processes that can also explain variance in task performance and interpersonal contextual performance. Perhaps the most important result

of this study is the finding that individuals' interpersonal contextual behavior in small groups can be motivated by holding group members accountable to each other and by recognizing group performance instead of individual performance. Task behavior in small groups can also be motivated by holding group members accountable to each other but perhaps not by recognizing group performance instead of individual performance. Therefore, although outcome interdependence can motivate interpersonal contextual behavior, it might not motivate task behavior in the same way.

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