

INFLUENCE OF TEAM VERSUS INDIVIDUAL PERFORMANCE RECOGNITION  
ON PRODUCTIVITY, ENTITATIVITY, AND SATISFACTION

by

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## ABSTRACT

SHAHAR GUR. Influence of team versus individual performance recognition on productivity, entitativity, and satisfaction. (Under the direction of DR. LISA S. WALKER)

The goal of this experimental study is to examine the influence of performance recognitions that target either the team or the individual on subsequent productivity, entitativity, and team and task satisfaction. Participants worked on an information-generating task with e-confederates and received praise for their performance that was either targeted individually at the participant or at the team as a whole. It was hypothesized that team-targeted performance recognition, as opposed to individual-targeted performance recognition, will decrease productivity, increase entitativity, increase team satisfaction, and decrease task satisfaction. While independent and paired-samples t-tests did not yield significant results, there are some trends in the hypothesized directions. Practical implications include suggestions for managers with how to recognize teams or individuals depending on the outcomes they would like to achieve. Future directions could expand on equity theory by adding risk as a factor in the experiment.

## TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
Employee Recognition	2
How to Recognize Employees	3
Recognizing the Team	4
Social Exchange Theory	6
Influence of Performance Recognition on Productivity	7
Influence of Performance Recognition on Entitativity	8
Influence of Performance Recognition on Satisfaction	9
CHAPTER 2: METHODS	11
Sample	11
Procedure	11
Measures	13
Plan of Analysis	14
CHAPTER 3: RESULTS	16
CHAPTER 4: DISCUSSION	20
Implications	21
Future Directions	23
Conclusion	24
REFERENCES	25
APPENDIX A: ALL QUESTIONNAIRE ITEMS	29
APPENDIX B: LINE GRAPHS OF STUDY VARIABLES	30

## CHAPTER 1: INTRODUCTION

Work teams are ubiquitous in today's workplace and have become an extremely important aspect of the business world since the 1990s (Levi, 2007). Therefore, it is important to examine how different ways of recognizing teams at the workplace changes their behaviors and attitudes. More specifically, deciding to recognize the team as a whole instead of individual members within the team when they work together on a particular task may have some consequences that have not yet been discovered, such as the influence of the recognition target on entitativity. Specifically, the purpose of this study is to examine whether the target of the performance recognition (team versus individual) influences individual's performance on the task, perceptions of the team's entitativity, and satisfaction with the team and the task.

So far, research has shown the importance of performance recognition on individual and organizational outcomes such as job satisfaction (Larsen, 1993), organizational commitment (Kerr & Slocum, 1987; Saunderson, 2004; Wallsten, 1998), and overall organizational climate (Renwick, 2003). In addition, recognized employees are more likely to be motivated to work hard (Hansen & Hansen, 2002; Magnus, 1981; Shepperd, 1993), have a higher employee morale (Hopkins, 1995), and be more satisfied with their jobs (Larsen, 1993). However, previous studies have focused on rewarding performance with financial rewards (Honeywell-Johnson & Dickinson, 1999; Barnes et al., 2011), while this study adds a novel contribution to the literature by focusing on how productivity is influenced by rewarding performance with informal, interpersonal rewards

in the form of immediate praise. This study also adds a novel contribution by testing the influence of the target of recognition on perceptions of team's entitativity.

The overall goal of this study is to examine the extent to which differences in the performance recognition target influence participants' productivity, perceptions of entitativity, and satisfaction with the team and the task. We first offer a review of previous research that pertains to employee recognition. Then, social exchange theory, the framework for the current study, is discussed. Finally, research on productivity, entitativity, and satisfaction is summarized, along with their respective hypothesized results.

### Employee Recognition

Scholars have thoroughly examined the positive outcomes derived from implementing employee recognition programs. Studies found that employee recognition can improve employee satisfaction and loyalty, which is correlated with greater productivity (Saunderson, 2004) and improvements in performance (Atambo et al., 2012; Bradler et al., 2013; Kosfeld & Neckermann, 2011). Moreover, research has shown that employee recognition leads to higher work attendance (Werner, 1992) and job retention (Jimenez, 2002; Moncarz et al., 2009). In particular, a study that examined why employees left their previous jobs has shown that the lack of recognition was a substantial factor in predicting employee turnover (Ross & Zander, 1957). Hence, a lack of employee recognition programs may have detrimental effects.

Aside from improving the bottom line of an organization, employee recognition is a humanistic practice that promotes social justice and dignity (Brun, 2000; De Konink, 1999; Pfeffer, 2007). Recognizing employees' hard work promotes respect and

appreciation among the organizational members and consequently reinforces humanistic and prosocial practices. Thus, employee well-being is enhanced with the effective implementation of employee recognition practices (Renwick, 2003). Pfeffer (2007), in addition to relating employee recognition to motivation theory, recommends engaging in high-commitment practices because it is equally beneficial for employees, managers, and shareholders.

### How to Recognize Employees

Employers should target the reward to the appropriate behavior if they want to solicit a certain desired outcomes (Kerr, 1975) and contribute to the organization's overall success (Cacioppe, 1999). Saunderson (2004) describes three main types of employee recognition: everyday, informal, and formal. It is well known that formal awards are the most established employee recognition practices in organizations. Everyday recognition, which is largely missing in practice, is extremely important because it reinforces organizational citizenship behaviors by highlighting that they are noticed and genuinely appreciated; increasing the frequency of the recognition is more likely to encourage positive and desired changes in behavior (Beel, 2007). Recognizing positive work behaviors does not need to be in the form of a grandiose gesture; rather, a simple "thank you" can suffice in showing appreciation to employees and encouraging them to continue behaving in a positive manner (Saunderson, 2004).

Nelson (1995) offers specific tips for Saunderson's third type of recognition, the informal recognition, by suggesting that the recognition should be immediate, personal, valuable, and directly reinforcing desired behavior. Sincere and personal displays of appreciation are more powerful than formal, generic ones (Luthans, 2000). Moreover, the

value of the recognition does not have to be monetary; in fact, research has shown that people prefer recognition in the form of attention and appraisal rather than financial benefits (Graham & Unruh, 1990; Long & Shields, 2010; Stum, 1998). More specifically, employees prefer direct verbal or written communication that recognizes their efforts (Saunderson, 2004). Even though it is very easy to do, managers rarely send emails to their employees recognizing their hard work (Saunderson, 2004), which, according to scholars who study employee recognition, is a wasted opportunity. The current research study specifically focuses on intangible and appreciative rewards that are nonmonetary, informal, immediate, and personal (Beel, 2007), such as giving immediate praise for a job well done.

In terms of choosing who to recognize, a study has found that employees prefer to be chosen based on the quality of their work (Luthans, 2000), even though research has shown that most companies recognize their employees based on seniority and tenure (Saunderson, 2004). It is also possible to recognize an employee by highlighting a well-executed work process or final product (Brun & Dugas, 2008). Saunderson (2004), however, recommends that organizations focus on the employees rather than objects, both in terms of who to recognize as well as what types of behaviors to recognize. For example, instead of focusing the recognition on employees who produce excellent products, organizations should recognize employees who engage in prosocial behaviors that enhance the routine, daily interactions among employees.

### Recognizing the Team

Ilgen and colleagues (1993) have encouraged researchers to focus on team research that can be applied to “real world” organizations in order to truly make an



impact, and one of the topics they suggested to examine is how the recognition of a team can affect its future performance. According to Beel (2007), the way in which managers reinforce behavior may change the dynamics of the team in future endeavors. For example, individuals who receive personal recognition when working in a group are less likely to "slack off" when performing future group tasks because they believe that their personal contribution is being noticed (Scott & Einstein, 2001). While it is important to recognize the individual members on a team, Larson and LaFasto (1989) posit that teams perform better if they are rewarded as a team for their achievements.

Johnson and Johnson (1997) explain that in cooperative work environments, group celebrations are instrumental in perpetuating cooperation among team members. By rewarding the entire team together, the leader highlights the importance of the teammates' commitment to one another. While scholars have examined how rewards affect future cooperation among members, there remains the question of what role informal, social rewards play on a team member's productivity, perceptions of entitativity, and satisfaction. Since productivity is an outcome that is commonly studied in research on teams, does rewarding the entire team versus individual members change the amount in which individuals contribute to future tasks? Also, there is a lack of knowledge as to how perceptions of entitativity are affected by individually recognizing members for their accomplishments while working on a team task. And finally, since the link between team and task satisfaction, which are common attitudinal outcomes in research on teams, and team-targeted versus individually-targeted performance recognition has not been made, will the target of the recognition influence team and task

satisfaction? The proposed study will examine these research questions, and will use social exchange theory as a lens through which these questions can be answered.

### Social Exchange Theory

This study uses social exchange theory as the framework by which to explain the influence of performance recognition on productivity, entitativity, and satisfaction. According to social exchange theory, interactions between people are shaped based on the relative payoffs that they receive from one another (Emerson, 1976; Homans, 1958; Homans, 1961). In the workplace, social exchange theory can come into play when a manager exchanges an intangible reward, such as praise, to an employee who has performed exceptionally well on an assigned task that benefits or improves the organization (Flynn, 2005). In addition, justice is an important component of social exchange as it relates to recognition because employees prefer to be treated with fairness and equity relative to the amount of work they perform (Cohen-Charash & Spector, 2001)<sup>1</sup>, and so they are more likely to act fairly toward the organization if they perceive that the actions towards them are just and warranted. When individuals perceive that they have been under-rewarded (i.e., the reward they received is not enough to “compensate” for their investment or amount of effort they exerted), they feel dissatisfied and thus less motivated to contribute in future endeavors; however, when individuals feel over-rewarded for a task, they contribute more due to their feelings of guilt (DeLamater et al, 2015, p. 495).

Furthermore, social exchange theory can be applied to the context of work groups.

Liden and Graen (1980) have found that employees with high-quality relationships with

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<sup>1</sup>Although perceptions of justice are related to culture, Cohen-Charash & Spector (2001) say that there are not enough cross-cultural studies in order to make claims about cultural differences in perceived organizational justice.

their direct supervisors tend to perform group tasks that lie beyond their expected duties, contributing to the notion that the positive social exchange between supervisors and their subordinates encourages the subordinates to work harder than those who do not have a strong positive relationship with their supervisors (Wayne et al., 1997). Therefore, in a social exchange scenario, the payoff for working harder and investing more time and effort than the other team members towards achieving the team's goals can be as simple as receiving praise from one's supervisor. Additionally, a social payoff that managers receive from providing team recognition is a team with high levels of entitativity and team satisfaction, thus encouraging the members to continue working together as a group.

#### Influence of Performance Recognition on Productivity

Productivity is one way of defining and measuring team success (Levi, 2007), especially if the nature of the group's task is collective and requires members to pool their efforts together in order to produce more than they potentially could if they were to work separately (DeLamater et al., 2015; Johnson & Johnson, 1997). Studying team productivity within the organizational research field has direct practical implications. Management scholars are especially interested in examining team productivity as an outcome because they are interested in finding ways of helping teams to operate more effectively at the workplace (Levi, 2007).

Social psychologists who study team productivity have coined the term "social loafing." Based on the concept of social loafing, individuals in a team tend to contribute less when working together as opposed to when working alone due to their assumptions that their teammates will make up for their decreased contribution (Latane et al., 1979). Two phenomena that developed from social loafing are the concept of "free riders"

(Sweeney, 1973) and the “sucker effect” (Johnson & Johnson, 1997); people become “free riders” in a team because they believe their efforts will go unnoticed, even though they will receive the same rewards as the other team members (Sweeney, 1973). Another way in which social loafing reduces individual’s productivity in a team setting is through the “sucker effect,” which occurs whenever experts in the team choose to not contribute as much as they can due to their aversion of letting others take advantage of them (Johnson & Johnson, 1997). Lastly, Kerr (1983) has posited that individuals in a team deal with a social dilemma of going after their own self-interests, thus hindering the success of the team as a whole.

As previously mentioned, supervisors should be aware of the potential influence on productivity that is caused by different ways of employee performance recognition (Beel, 2007). For example, if a supervisor highlights an individual’s contribution to the team task, that individual is more likely to contribute in the future because she feels she is being recognized and rewarded for her efforts (Scott & Einstein, 2001). Moreover, by targeting performance recognition at the team, supervisors may remind individuals of their team work environment and unintentionally perpetuate individuals’ engagement with social loafing. Therefore:

*Hypothesis 1: Task 2 productivity of those who receive post-task 1 team-targeted performance recognition will be lower than those who receive post-task 1 individual-targeted recognition.*

#### Influence of Performance Recognition on Entitativity

Entitativity, or a person’s recognition of a social unit as a “group,” is an extremely important antecedent in any research study on groups because a collection of individuals

must be perceived as a group before researchers can begin to examine the group's outcomes (Campbell, 1958; Igarashi & Kashima, 2011; Meneses et al., 2008; Spencer-Rodgers et al., 2007). Blanchard et al. (2014) have posited that group entitativity is formed based on group's similarity, interactivity, boundaries, history, and importance. If the team gets praised as a whole, it is likely that members of the team will perceive it as more of a group when compared to situations when individuals receive praise or performance recognition alone even though they worked as part of a team. Thus, a performance recognition targeted at the team can serve as a kind of an external reinforcer that the team is a cooperative and successful group with a high level of entitativity, while individual-targeted performance recognition may lead team members to think that their team is disjointed and unsuccessful when working together. Therefore:

*Hypothesis 2: Post task-2 perceptions of entitativity for those who receive post-task 1 team-targeted performance recognition will be higher than those who receive post-task 1 individual-targeted recognition.*

#### Influence of Performance Recognition on Satisfaction

Previous research has found a positive relationship between employee recognition and job satisfaction (Larsen, 1993; Magnus, 1981; Saunderson, 2004). However, direct links between team- versus individual-targeted recognition and satisfaction with the team and the task have not been made. Using the framework of social exchange theory, it is posited that individuals who receive team-targeted performance recognition would feel they are under-rewarded for their input and therefore will be more dissatisfied with the task than those who receive individual recognition. Additionally, individuals who receive team-targeted recognition will

be more satisfied with their team than those who receive team recognition because they will use the recognition as an external reinforcer that the team is good and works well together. Therefore:

*Hypothesis 3a: Team satisfaction will increase from task 1 to task 2 after receiving team-targeted performance recognition, but task satisfaction will decrease from task 1 to task 2 after receiving team-targeted recognition.*

*Hypothesis 3b: Team satisfaction will decrease from task 1 to task 2 after receiving individual-targeted performance recognition, but task satisfaction will increase from task 1 to task 2 after receiving individual-targeted recognition.*

## CHAPTER 2: METHODS

### Sample

The sample consists of 116 college students in a large Southeastern university who participated in the study for ½ course credit. The sample was 75% female with an average age of 19.8 years (SD=2.9). The participants were 66.4% White/Caucasian, 17.2% African American, 6.9% Asian American, 5.2% Hispanic American, and 4.3% other ethnicities.

### Procedure

Participants are told that they will be working on two tasks with two online partners. The tasks are information-generating by nature such that their performance is measured based on how much information they provide. Participants are told that their partners are in different locations, but in fact their partners are computer-generated. Before they begin the first task, participants are asked to answer six questions related to their predisposed team orientations.

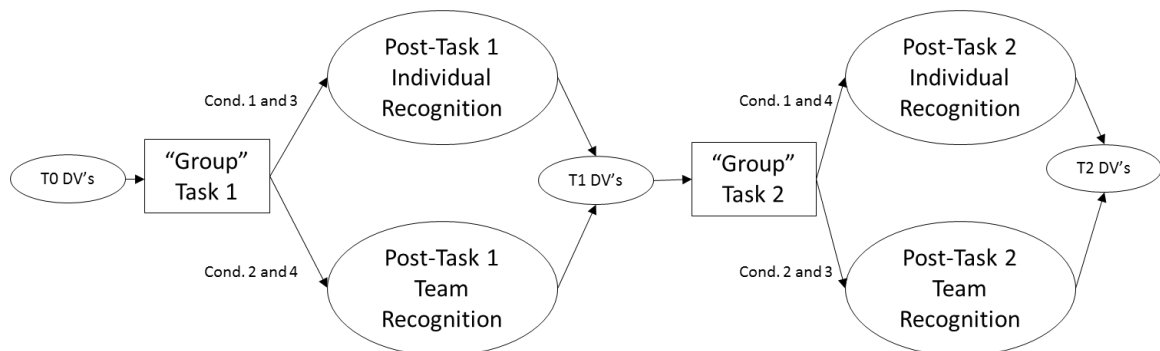


Figure 1: Depiction of the study's procedure

Participants are then randomly assigned to one of four experimental conditions. Experimental conditions are based on timing (post-task 1 and post-task 2) and target (team versus individual) of performance recognition. An individual recognition involves the participant's name and the number of points they have earned from the task (e.g., "Great job, NAME! You have earned 4 points"). Team recognition involves congratulating everyone for the overall points earned (e.g., "Great job, everyone! Together you have earned 13 points overall"). Participants in condition 1 (n=28) receive individual recognition after task 1 and individual recognition after task 2. Participants in condition 2 (n=31) receive team recognition after task 1 and team recognition after task 2. Participants in condition 3 (n=27) receive individual recognition after task 1 and team recognition after task 2. Participants in condition 4 (n=30) receive team recognition after task 1 and individual recognition after task 2.

The first task asks the participants to work with their two partners as a group for one minute and name as many states in the United States as they can. It is explained that they earn points based on how many states they are able to nominate together as a team. Duplicate nominations do not count (that is, if two people nominated the same state, the team only earned one point for that state). During the task, the target participant is able to see the screens of the other two participants, thus they are encouraged to name states that have not been generated by their group mates. At the end of the first task and based on their assigned condition, the target participant is either recognized individually for the number of correct and unique states that s/he has named, or the group is recognized as a whole for the number of correct and unique states they generated together. Following the



recognition, a questionnaire is administered assessing the target's perception of the team's entitativity, as well as the target's team satisfaction and task satisfaction.

In the second task, participants are asked to do the same as above, only this time name cities that are state capitals for one minute. Again, they are able to see their group mates' screens, so they are encouraged to name cities that are different from what their partners are generating. At the end of the second task and based on their assigned condition, the target participant is either recognized individually for the number of correct cities s/he named, or the group is recognized as a whole for the number of correct unique cities they generated together. Then, the final questionnaire is administered asking the same questions as above.

In addition to attitudinal measures of perceptions of entitativity, team satisfaction, and task satisfaction, behavioral measures in the form of productivity are also captured as the correct number of states and cities each target participant generates.

### Measures

Appendix I contains all questionnaire items used in the study. Entitativity was assessed before task 1 (T0). Then, entitativity, team satisfaction, and task satisfaction were assessed after post-task 1's performance recognition (T1) and after post-task 2's performance recognition (T2).

**Entitativity.** Three items assess participants' perception of the level of their team's entitativity (i.e., groupyness) (e.g., "My teammates and I are a group"). Response options were on a 5-point agreement scale. Entitativity was assessed before task 1, after task 1, and after task 2. Lambdas from factor analyses of each time point's three-item scale

ranged from .64 to .91. The three items were averaged to form a composite per time point.

**Team Satisfaction.** Three items assess participants' level of satisfaction with their team (e.g., "All in all, I am satisfied with my team."). Response options were on a 5-point agreement scale. Team satisfaction was assessed after task 1 and after task 2. Lambdas of each time point's three-item scale ranged from .58 to .91. The three items were averaged to form a composite per time point.

**Task Satisfaction.** Three items assess participants' level of satisfaction with the task (e.g., "In general, I don't like the task." (reverse-coded)). Response options were on a 5-point agreement scale. Task satisfaction was assessed after task 1 and after task 2. Lambdas of each time point's three-item scale ranged from .55 to .82. The three items were averaged to form a composite per time point.

**Productivity.** Productivity was coded as the correct number of cities that the participants have generated during the second task in the allotted time. This number was normalized based on the overall sample mean per task to allow for easier interpretation of the data.

### Plan of Analysis

To test our hypotheses, we conduct independent samples t-tests for conditions 1 and 2 and paired-samples t-tests for conditions 3 and 4 using SPSS to compare group means of the independent variables across conditions. More specifically, to find support for Hypothesis 1, we examine whether there is a statistically-significant difference between task 2 productivity of participants in condition 1 versus those in condition 2 using an independent samples t-test. To find support for Hypothesis 2, we examine

whether there is a statistically-significant difference between perceptions of entitativity of participants in condition 1 versus those in condition 2 using an independent samples t-test. We include conditions 1 and 2 when testing for Hypothesis 2 because we want to only include conditions with repeated recognition targets. Finally, to find support for Hypotheses 3a and 3b, we examine whether there is a statistically-significant difference between team and task satisfaction within-subjects for participants in conditions 3 and 4 using paired-sample t-tests. Because we are looking to see whether team and task satisfaction increase or decrease after switching recognition targets from post-task 1 to post-task 2, we only include conditions 3 and 4 in these analyses. The proposed hypotheses are supported or rejected based on statistical significance of the analyses. However, if rejected, trends are examined to determine if and whether differences between the groups are in the hypothesized directions.

## CHAPTER 3: RESULTS

Means, standard deviations, and zero-order correlations of all study variables are reported in Table 1. Line graphs are available in Appendix II for ease of data interpretation. The overall sample average number of correct state capitals named was  $M=5.58$  ( $SD=4.27$ ). The scores were normalized based on the overall sample average by dividing the difference between the score and the mean by the mean to allow for easier interpretation of the data. The normalized productivity scores were used in all future analyses.

Table 1: Means, standard deviations and zero-order correlations among study variables

	M	SD	1	2	3	4	5	6	7
1. Productivity (2)	-.00	.76	—						
2. Entitativity (0)	3.84	.56	.12	—					
3. Entitativity (1)	3.86	.68	.26**	.61**	—				
4. Entitativity (2)	3.77	.75	.12	.36**	.63**	—			
5. Team Sat. (1)	3.90	.59	.13	.52**	.67**	.42**	—		
6. Team Sat. (2)	3.83	.67	.05	.26**	.33**	.64**	.50**	—	
7. Task Sat. (1)	3.72	.59	.23*	.38**	.44**	.33**	.60**	.46**	—
8. Task Sat. (2)	3.32	.79	.39**	.28**	.38**	.39**	.36**	.32**	.43**

*Note.*  $N = 116$ . \* $p < .05$ ; \*\* $p < .01$ . Productivity score is normalized based on sample mean. Productivity (2)=productivity during task 2. Entitativity (0)=Entitativity before task 1. Entitativity (1)=Entitativity after task 1. Entitativity (2)=Entitativity after task 2. Team Sat. (1)=team satisfaction after task 1. Team Sat. (2)=team satisfaction after task 2. Task Sat. (1)=task satisfaction after task 1. Task Sat. (2)=task satisfaction after task 2.

To find support for study hypotheses, we first created a table that reports the means and standard deviations for study variables by condition (Table 2). *Hypothesis 1*

posited that individuals who receive post-task 1 individual-targeted performance recognition will be more productive in task 2, while individuals who receive post-task 1 team-targeted recognition will be less productive during the second task. Independent samples t-test analyses for productivity during the second task were conducted between condition 1 (who received individual-targeted recognition after both tasks) and condition 2 (who received team-targeted recognition after both tasks). We examined differences in productivity during task 2 (as opposed to including task 1) because participants did not yet receive any recognition while performing the first task. There was no significant difference in task 2 productivity between condition 1 ( $M=-.09$ ,  $SD=.84$ ) and condition 2 ( $M=.03$ ,  $SD=.70$ );  $t(57)=-.92$ ,  $p=.36$ . We conclude that *Hypothesis 1* is not supported by the data. The results were in the opposite direction hypothesized, with participants who receive individual recognitions producing less than those who receive team recognition.

Table 2: Means and standard deviations of study variables by condition

	<b>Condition 1</b> <i>Indv., Indv.</i> (n=28)	<b>Condition 2</b> <i>Team, Team</i> (n=31)	<b>Condition 3</b> <i>Indv., Team</i> (n=27)	<b>Condition 4</b> <i>Team, Indv.</i> (n=30)
1. Productivity (2)	-.09 (.84)	.03 (.70)	.05 (.84)	.00 (.71)
2. Entitativity (0)	3.74 (.53)	3.90 (.73)	3.93 (.48)	3.81 (.46)
3. Entitativity (1)	3.75 (.85)	3.94 (.62)	3.83 (.68)	3.92 (.57)
4. Entitativity (2)	3.61 (.95)	3.72 (.82)	4.00 (.59)	3.78 (.57)
5. Team Sat. (1)	3.98 (.59)	3.91 (.54)	3.70 (.65)	3.98 (.52)
6. Team Sat. (2)	3.81 (.72)	3.84 (.61)	3.88 (.68)	3.79 (.71)
7. Task Sat. (1)	3.58 (.57)	3.84 (.66)	3.63 (.62)	3.81 (.51)
8. Task Sat. (2)	3.11 (.88)	3.26 (.71)	3.35 (.77)	3.54 (.76)

*Note.*  $N = 116$ . \* $p < .05$ ; \*\* $p < .01$ . Standard deviations in parenthesis. Productivity score is normalized based on sample mean. Productivity (2)=productivity during task 2. Entitativity (0)=Entitativity before task 1. Entitativity (1)=Entitativity after task 1. Entitativity (2)=Entitativity after task 2. Team Sat. (1)=team satisfaction after task 1. Team Sat. (2)=team satisfaction after task 2. Task Sat. (1)=task satisfaction after task 1. Task Sat. (2)=task satisfaction after task 2.

*Hypothesis 2* posited that individuals who receive team-targeted recognition will have higher perceptions of entitativity than those who receive individual-targeted

recognition. Independent samples t-test analyses were again conducted between conditions 1 and 2 to examine for differences in entitativity after tasks 1 and 2. There was no significant difference in entitativity after task 1 between condition 1 ( $M=3.75$ ,  $SD=.85$ ) and condition 2 ( $M=3.94$ ,  $SD=.62$ );  $t(57)=-.96$ ,  $p=.34$ . Similarly, there was no significant difference in entitativity after task 2 between condition 1 ( $M=3.61$ ,  $SD=.95$ ) and condition 2 ( $M=3.72$ ,  $SD=.82$ );  $t(57)=-.49$ ,  $p=.62$ . Therefore, we conclude that *Hypothesis 2* was not supported by the data. However, perceptions of team's entitativity for those who received team recognition were higher than those who received individual recognition, which is the direction originally hypothesized.

Our third and final set of hypotheses, *Hypothesis 3a* and *3b*, pertained to team and task satisfaction; we posited that team-targeted performance recognition would increase team satisfaction but decrease task satisfaction, while individual-targeted recognition would decrease team satisfaction but increase task satisfaction. Paired-sample t-tests were conducted between condition 3 (who received individual-targeted post-task 1 and team-targeted post-task 2 recognitions) and condition 4 (who received team-targeted post-task 1 and individual-targeted post-task 2 recognitions). Paired-sample t-tests were conducted for conditions 3 and 4 separately to examine within-subject differences on team and task satisfaction from post-task 1 to post-task 2. For condition 3, there was no significant difference in team satisfaction from task 1 ( $M=3.70$ ,  $SD=.65$ ) to task 2 ( $M=3.88$ ,  $SD=.68$ );  $t(26)=-1.33$ ,  $p=.20$ . Similarly for condition 3, there was no significant difference in task satisfaction from task 1 ( $M=3.63$ ,  $SD=.62$ ) to task 2 ( $M=3.35$ ,  $SD=.77$ );  $t(26)=1.76$ ,  $p=.09$ . Moreover, for condition 4, there was no significant difference in team satisfaction from task 1 ( $M=3.98$ ,  $SD=.52$ ) to task 2 ( $M=3.79$ ,  $SD=.71$ );  $t(29)=1.63$ ,  $p=.11$ .

Additionally, for condition 4, there was a significant difference, but in the opposite direction hypothesized, in task satisfaction from task 1 ( $M=3.81$ ,  $SD=.51$ ) to task 2 ( $M=3.54$ ,  $SD=.76$ );  $t(29)=2.22$ ,  $p=.03$ . Therefore, we conclude that both *Hypotheses 3a* and *3b* were not supported by the data.

## CHAPTER 4: DISCUSSION

The study hypotheses were not supported by the data. An examination of the differences in means and a power analysis suggest that increasing the sample size would aid in yielding statistically-significant findings, especially for team and task satisfaction. More specifically, there are very minor differences between the changes in team satisfaction for conditions 1 and 2 (even though condition 1 had a higher change value, both conditions decreased in team satisfaction from task 1 to task 2). However, as originally hypothesized, conditions 3 and 4 show a more prominent change; condition 3's team satisfaction increases from task 1's individual-targeted recognition to task 2's team-targeted recognition, while condition 4's team satisfaction decreased from task 1's team-targeted recognition to task 2's individual-targeted recognition. Albeit small in effect, team satisfaction may be influenced by the alternating target of the recognition between the two tasks.

In addition, even though there were no statistically-significant differences in perceptions of entitativity between conditions 1 and 2, condition 1's individual-targeted recognitions may have contributed to the fact that they had the lowest entitativity scores after task 2. While it was not included in the analyses, there seem to be interesting changes in conditions 3 and 4's perceptions of entitativity that are similar to their trends in team satisfaction discussed above. It is interesting to note that entitativity and team satisfaction exhibit similar trends, especially because they had a strong and positive



correlation after both task 1 ( $r=.67, p<.001$ ) and task 2 ( $r=.64, p<.001$ ). The more satisfied participants were with their team, the more they felt like their team was a group.

Finally, based on the correlation between the productivity during the two tasks ( $r=.50, p<.001$ ), prior level of knowledge on the subject matter may play an important role in the level to which they contributed to the team task. Not to our surprise, participants who performed better during the tasks were also more satisfied with the tasks (task 1  $r=.37, p<.001$ ; task 2  $r=.39, p<.001$ ). Considering that all participants reported decreased levels of task satisfaction from task 1 to task 2, the second task may have been too difficult, yet those who succeed in it were still satisfied with it.

### Implications

The implications of this study are both theoretical and practical. We are contributing to the large scholarship of performance recognition by attempting to show that praise, and not just money, can play a role in motivating people to produce more and have more positive attitudes about their team and the task. Additionally, this study aimed to add to the employee recognition literature by showing that targeting either the performance of the team or the individual can slightly change people's attitudes about their team and tasks.

Furthermore, in terms of practical implications, this study could have been applied to workplace settings by project leaders or managers who may choose whether to target their praises at specific individuals or the whole team, depending on who they wish to motivate and the results they would like to achieve. For example, if a project leader would like to motivate one individual in particular to work harder and be more productive, she can publicly praise him for his specific accomplishments that have helped

the team thus far. On the other hand, if a project leader is noticing that his team is not acting like a group, he can congratulate them on the progress they have all made together and thus reinforce to them the notion that they are a successful team, motivating them to be productive as a unit.

Given the null results, theoretical implications are such that perhaps a theory other than social exchange could have been applied to the rationalization of the hypotheses. For example, equity theory could have been used to explain that individuals will be satisfied with what they perceived as fair and just, and thus any type of recognition is considered fair. Alternatively, applying motivation theory and including a condition without any type of recognition would have been helpful in parsing out the differences due to recognition versus lack of recognition. In addition to examining differences in behavior (i.e., productivity), a study with a no-recognition condition could also aid in understanding how a lack of recognition affects perceptions of entitativity and satisfaction with the team and task.

Finally, another theoretical implication is that perhaps instead of using social exchange theory, a theory of employee recognition needs to be formed in order to encompass and fully describe the processes and outcomes involved with recognizing positive workplace behaviors. More specifically, a grounded theory study can describe patterns of recognition and the ways in which they might relate to consequent performance, perceptions of team's entitativity, and satisfaction with the team and tasks. A grounded theory study that employs a mix-methods approach can use not only interview data for attitudinal measures but also archival data in the form of electronic mail (to record actual recognition) and performance reviews for behavioral measures.

## Future Directions

Future research efforts should collect more data using a similar experimental paradigm in order to achieve statistically-significant differences among conditions. Power analysis calculations showed that some variables only needed about 10 additional participants in order to yield statistically-significant results. This is not the case for all variables, as some needed as many as 500 additional participants to yield statistically-significant results. Also, most t-test's confidence intervals did include zero (except for condition 4's task satisfaction), meaning that the results were not practically significant.

Another possible future direction is to change the second task to an easier task. Perhaps being unable to name state capitals caused participants in the sample to feel incompetent when compared to their e-confederate team mates (who were able to contribute somewhat successfully to this task). Alternatively, perhaps participants being unable to name state capitals started to feel more apathetic about the team and task after the second task. As evident in Table 2, every condition's task satisfaction dropped from post-task 1 to post-task 2. Instead of state capitals, a future study could ask participants to name countries in the world, which also has a finite number of correct responses but might be information that is more readily available to retrieve than state capitals.

An additional study can be conducted with both team and individual recognitions to see whether receiving the two at the same time has an additive effect beyond the effects of receiving each one individually. A condition in which participants receive two lines of recognition can be added to the experiment (e.g., "Good job! You have earned XX points. Also, your team together has earned XX points!). Then, behavioral and attitudinal outcomes can be compared to those who only receive one type of recognition

in order to see whether the two recognitions together positively influence productivity, entitativity, team satisfaction, and task satisfaction.

### Conclusion

In conclusion, while the results were not statistically significant, this study was the first to examine the differences in team- versus individual-targeted performance recognition and the extent to which it may influence productivity, perceptions of entitativity, and satisfaction with the team and task. The decision of whether to recognize the team or an individual team member can have an impact on individuals' future productivity. Making managers aware of this issue can result in more effective performance recognition strategies that optimize individual and organizational outcomes.

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## APPENDIX A: ALL QUESTIONNAIRE ITEMS

Please answer the following questions:

*1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree*

1. I feel comfortable depending on my team members.
2. I feel that I will not be able to count on my team members to help me.
3. I feel that I can trust my team members completely.
4. My teammates and I are a unit.
5. My teammates and I are a group.
6. My team feels like a group to me.
7. All in all, I am satisfied with my team.
8. In general, I don't like my team.
9. In general, I like working with my team.
10. All in all, I am satisfied with the task.
11. In general, I don't like the task.
12. In general, I like working on the task.
13. If I had to do this task again, I would work with the same team.
14. I do not want to work with this team again on future tasks.
15. I would enjoy working with the same partners on another task.

## APPENDIX B: LINE GRAPHS OF STUDY VARIABLES

