

# The Congruence Effects of Social Recognition Supplied and Needed on Individual Performance Outcomes: The Mediating Role of Intrinsic Motivation

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## ABSTRACT

*This study utilizes person-environment (P-E) fit theory as the theoretical foundation to examine how congruence between the perceptions of social recognition supplied by supervisors, and social recognition needed by employees can increase intrinsic motivation, resulting in increased employee performance. We tested our hypotheses using polynomial regression and response surface methodology. Our findings provided partial support for our hypotheses, as a congruence between perceptions of social recognition supplied and needed did increase intrinsic motivation when the congruence amount was high. This congruence effect was also indirectly positively related to organizational citizenship behaviors. This study addresses gaps in the social recognition literature by specifically examining the role of perceived social recognition provided by direct supervisors, and its effect on intrinsic motivation, and associated performance outcomes. We discuss the implications of our findings, limitations, and future research opportunities.*

**Subject:** Human Resource Management and Organizational Behavior

## INTRODUCTION

It has been established that giving a little thanks in the workplace can go a long way in motivating positive behaviors (Grant & Gino, 2010). For example, teams perform better when there is a feeling of appreciation and respect within the team (Geue, 2018). Despite the benefits of showing appreciation for a job well done (Stajkovic & Luthans, 2001), most businesses fail in recognition efforts and often waste resources in doing so (Gibson, O’Leary, & Weintraub, 2020). Because of this, it is important to examine how recognition from leaders can lead to positive outcomes. Specifically, how leaders can function as a valuable resource in fulfilling the needs of employees to create a fit that promotes motivation and positive performance.

Studying the impacts of a fit between a person and their environment (P-E fit) is one of the most widely researched topics in management research (i.e., Lee, Jin, & Ryu, 2021; Deschenes, 2021; Cai, Wu, Ying, Chen, & Wu, 2020; Kristof-Brown, Zimmerman, & Johnson 2005). Fit perceptions between the needs of an employee and the supply of that need in the environment are especially important indicators of job outcomes such as turnover decisions, job satisfaction, job performance, psychological well-being, and motivation (Cable & Judge, 1996; Edwards & Shipp, 2007). One especially potent outcome of P-E fit is

that of motivation, as individuals who seek desirable rewards are motivated to attain such rewards (Edwards & Shipp, 2007; Lawler, 1973; Vroom, 1964). When a perceived fit between a person and the environment exists, the fit can act as a source of intrinsic motivation (Ren, 2010).

Intrinsic motivation is especially important to supervisors and organizations as intrinsic motivation leads to more positive outcomes than extrinsic motivation (Deci & Ryan, 2010). Individuals who are intrinsically motivated stick with tasks longer, which results in better job performance (Grant, 2008). Because of this, supervisors should try to maximize intrinsic motivation. A study by Kim & Kim (2013) suggests that when a congruence exists between an environmental resource for supervisor and subordinate, the motivation outcomes are more likely to be intrinsic. One environmental resource of particular interest is social recognition. Social recognition refers to an employees' perception that their supervisor acknowledges, gives attention to, praises, approves of, and genuinely appreciates the employees' work (Peterson & Luthans, 2006).

Social recognition is seen as a type of non-financial incentive, separate and distinct from the motivating incentive of formal recognition (Peterson & Luthans, 2006). Whereas recognition is typically a formal program, social recognition is typically more informal in nature (Peterson & Luthans, 2006). Examples of social recognition include expressions of approval, taking interest in another, and offering compliments (Stajkovic & Luthans, 2003). Social recognition has been shown to have a significant impact on performance outcomes, such as job performance (Stajkovic & Luthans, 2003). This research adds to the literature by extending P-E fit theory by focusing on two performance domains: organizational citizenship behavior (OCB) and counterproductive work behavior (CWB) (Dalal, 2005). The current study examines why congruence between perceptions of social recognition supplied by supervisors and needed by employees can increase job performance and OCB, while lowering CWB, through the mediating effect of intrinsic motivation.

First, we review the literature on person-environment fit, recognition, and intrinsic motivation. Next, we develop hypotheses that are based on the congruence between recognition needed by the employee and supplied by the supervisor. We predict that recognition congruence will increase positive outcomes and lower negative outcomes through intrinsic motivation. Next, we lay out our choice of methodology (polynomial regression and surface response images) that is specific to our theorizing. Finally, we analyze our results, discuss the findings and close with future research, practical significance, and study limitations.

## **LITERATURE REVIEW**

### **Person-Environment Fit**

P-E fit posits that a fit or congruence between psychological needs and environmental supplies impacts an individual's attitudes and behaviors (Schneider, 1987). Individuals compare resources that they need with the supply of that resource in the environment. The fit between the level of resources needed and resources supplied can be classified into three types of fit: deficiency, congruence, and excess (Edwards, Caplan, & Harrison, 1998). Deficiency exists when the environmental resource supplied by the environment falls short of the needs of the individual. Congruence (fit) happens when the environmental resources supplied by the environment is in line with the needs of the individual, and excess occurs when the environmental resources supplied by the environment exceeds the needs of the individual (Tepper et al., 2018). When there is a congruence between resources supplied in the environment and the needs required by an employee, the outcomes are often positive (Kristof-Brown, Zimmerman, & Johnson, 2005).

The fit between needs and supplies in the environment can occur at low and high levels of the resource (Edwards & Harrison, 1993). For example, an employee may need a high amount of personal connection with a supervisor. If the employees' supervisor provides a high amount of personal connection, a congruence exists, and the high need for personal connection is satisfied. The same is true for an individual with a need for a low amount of personal connection with a supervisor. If an employee's supervisor provides a low amount of personal connection, the result would still be a congruence between need for a resource and the environmental supply of that resource. For some resources, a high level may result in more positive outcomes. But for other resources, a low level may result in more positive outcomes. For instance, Tepper et al. (2018) found that within individuals, the positive effect was higher when a fit occurs between transformational leadership needed and supplied are higher rather than lower. Baer, Frank, Matta, Luciano & Wellman (2021) also found that perceptions of overall fairness were higher when the congruence between trust wanted, and trust received were higher rather than lower. Thus, it is important to investigate not only the congruence or incongruence between needs and supplies of resources but the level of congruence (e.g., high-high vs low-low) between resources.

## **Social Recognition**

Despite the benefits and general importance of employee recognition in organizations, the topic has not been fully investigated and has received little direct attention in the academic literature. The construct, *social* recognition, is differentiated, in the literature, from *formal* recognition. Both forms of recognition exist under the umbrella of non-financial incentive motivators, with extant research suggesting that social recognition is a form of feedback and vice versa (Peterson & Luthans, 2006). However, social recognition is uniquely defined as "personal attention, mostly conveyed verbally, through expressions of interest, approval, and appreciation for a job well done" (Stajkovic & Luthans, 2001, p. 582). Social recognition plays an important role in organizations, as it has a positive impact on individual performance (Stajkovic & Luthans, 2001), and as such, it can function as a leadership tool used to improve employee performance (Luthans, 2000). Social recognition has also been identified as an important element of psychological meaningfulness (Brown & Leigh, 1996).

One important distinction of social recognition that theorists have made is that the benefits of social recognition does not come from the social reactions themselves, but from its so-called predictive value (Bandura, 1986). Individuals may assume that because they are receiving social recognition, they may also receive valuable personal tangible consequences (e.g., promotion & raises) (Stajkovic & Luthans, 2003). Therefore, through its predictive value, social recognition is one way to increase employee motivation (Stajkovic & Luthans, 2001). In addition, social recognition can be utilized to demonstrate that supervisors have faith in an employee to perform difficult and complex tasks (Stajkovic & Luthans, 2001).

## **Intrinsic Motivation**

Motivation exists in two broad categories, intrinsic and extrinsic motivation. Intrinsic motivation is focused on doing an activity for its own satisfaction rather than separable consequences of prods, pressures, or rewards (Ryan & Deci, 2000), whereas extrinsic motivation is focused on doing an activity to attain an external contingent separable outcome, such as financial rewards (Ryan & Deci, 2000). Utilizing the P-E fit paradigm, "supplies are the extrinsic and intrinsic resources and rewards available to fulfill the needs of the person" (Edwards & Shipp, 2007, p. 18). The fit between the environment and individuals can facilitate performance, influence job satisfaction, and fulfill internalized desires (Edwards & Shipp, 2007).

Not all activities in life are going to be intrinsically motivating. Some incentives are only motivating when they are seen to an end, such as in purchasing food and in securing housing (Vroom, 1964). This leads to the issue of how external rewards and incentives (such as pay and benefits) lead to intrinsic motivation. This issue has been explored through the Self Determination Theory (SDT) (Deci & Ryan, 1985). The basic components of SDT pose that intrinsic motivation occurs when individuals feel that they have a sense of autonomy, relatedness, and competence (Ryan & Deci, 2000). In addition, research suggests that when incentives control an individual, it blocks their autonomy, which reduces intrinsic motivation (Ryan & Deci, 2000). Conversely, when incentives are supporting in nature, they increase intrinsic motivation (Cerasoli, Nicklin, & Ford, 2014; Deci, Koestner, & Ryan, 1999). Social recognition provides individuals with increases in autonomy, and the positive verbal recognition from the supervisor provides increases in feelings of competence and relatedness (Deci & Ryan, 1985; Gilbert & Kelloway, 2018). The satisfaction of this psychological need for autonomy, competence, and relatedness increases intrinsic motivation (Deci & Ryan, 1985). When social recognition supplied and social recognition needed results in a feeling of congruence, the congruence will result in the satisfaction of the psychological need for competence and relatedness, which will increase intrinsic motivation (Cable & Edwards, 2004; Edwards & Cable, 2009).

The satisfaction of psychological needs depends on the individual's preference for such psychological needs. Within the environment, supervisors can provide recognition to employees, but at varying levels. To illustrate, imagine a scenario where an employee needs a high level of recognition (say an 8 on a scale from 1 through 10). The supervisor could provide recognition to the employee, but only at a moderate amount (say a 5, relative to the employee). Even though recognition is being provided, there is an incongruence between the recognition needed and the recognition supplied in the environment. Both employee and supervisor would need to be at or close to an 8 for a congruence to exist. Based on our theorizing, it is especially important for leaders and their employees to be in congruence as it relates to the need for recognition. Recognition may be positively related to intrinsic motivation, but we predict that this positive relationship will be maximized when a congruence in the amount of recognition supplied and needed exists. Thus, we hypothesize that the congruence between social recognition supplied, and social recognition needed by a supervisor will be positively related to intrinsic motivation.

*Hypothesis 1:* Congruence between recognition supplied and recognition needed will be positively related to intrinsic motivation.

Congruence can occur at various levels, depending on the needs of the individual employee. (Peterson & Luthans, 1993). According to the P-E fit perspective, individual employees respond to varying levels of fit between social recognition needed and received. Low absolute fit refers to situations where social recognition needed and received are both low, and high absolute fit refers to situations where social recognition needed and received are both high (Tepper et.al, 2018). When employees need and receive low levels of social recognition, P-E fit suggests that they are adequately satisfied and require no additional recognition. However, at high levels of absolute fit, employees have substantial needs for social recognition that are being met (Tepper et al. 2018).

Although congruence can occur at varying levels, the concept of "metafit" refers to the idea that for some resources, absolute fit at high levels can be preferable as it can satisfy additional fundamental needs of the employee (Edwards & Rothbard, 1999; Tepper et.al, 2018). Consider two employees, one of whom wants and receives low social recognition from their supervisor and one of whom wants and receives high levels of social recognition. Congruence is achieved in both cases. However, higher levels of social recognition are likely to provide additional needs including intrinsic motivation (Piccolo & Colquitt, 2006). Therefore, "the metafit concept explains why receiving high levels of a sought-after supply can satisfy needs that may otherwise not be satisfied for individuals who receive lower levels of an undesired supply" (Tepper et al. 2018, p.1345). Going back to our prior example, imagine that an employee needs high

levels of recognition (an 8 out of 10). If the supervisor provides an 8 out of 10, a congruence effect occurs. Similarly, if an employee needs low levels of recognition (a 3 out of 10), and a supervisor provides a level 3, a congruence effect occurs. Because social recognition attempts to point out and reinforce positive behavior (Stajkovic & Luthans, 2001), higher amounts of recognition congruence are likely going to have a greater effect on intrinsic motivation. The employee who is at a level 8 and has recognition congruence is likely to be more intrinsically motivated than the employee who is at a level 3 and has recognition congruence. Based on this theorizing, we propose in hypothesis 2 that intrinsic motivation will be higher when social recognition congruence occurs at higher, rather than lower levels.

*Hypothesis 2:* Intrinsic motivation will be higher when congruence between recognition supplied, and recognition needed occurs at higher levels rather than at lower levels.

## **Job Performance**

Researchers have established three broad performance domains which include task performance, organizational citizenship behaviors (OCB), and counterproductive work behavior (CWB) (Dalal, 2005). Task performance relates to requirements that are formally part of the job (in-role) (Borman & Motowidlo, 1993). OCB are behaviors that aren't explicitly laid out in the job description (extra-role) but promote the effective functioning of the organization (Organ, 1988). OCBs have been shown to increase employee job performance. The link between intrinsic motivation and job performance outcomes can be looked at through the lens of intrinsic motivation itself (Guo, Liao, Liao, Zhang, 2014). Employees who are intrinsically motivated persevere in the face of obstacles and difficulties (Utman, 1997), allowing them to fulfill the prescribed job duties. Extant research also exhibits a clear link between job performance and firm performance. Organizational citizenship behaviors have become increasingly important to organizations, as they often result in employees working harder and longer to meet the needs of the firm without the expectation of additional extrinsic rewards (Cheung, Peng, & Wong, 2014). Chun, Shin, Choi, Jin, & Kim (2013) addressed the importance of OCBs in their study by concluding that these behaviors result in increased firm performance. Khan, Ateequ-ur-Rehman, Ahmed, & Adeel (2021) offered similar results suggesting that OCBs improve the triple bottom line for manufacturing firms. We predict that congruence between social recognition supplied and needed will be positively related to OCB and task performance, but that the increase in performance will only come through an increased level of intrinsic motivation.

*Hypothesis 3a-b:* Congruence between social recognition supplied and social recognition needed will have a positive indirect effect on (a) task performance and (b) OCB via intrinsic motivation.

Conversely, CWB are behaviors that have a negative value for the organization and threaten the organization's well-being (Robinson & Bennett, 1995). Research on intrinsic motivation has shown that individuals who are intrinsically motivated typically have positive outcomes such as creativity (Deci & Ryan, 2000), job satisfaction (Ilardi, Leone, Kasser, & Ryan, 1993), and organizational citizenship behaviors (Bolino, 1999; Finkelstein, 2011). Based on this theorizing, congruence will increase intrinsic motivation and this increase in intrinsic motivation will have a negative effect on CWB. Thus, we predict that the congruence between social recognition supplied and needed will have a negative indirect effect on CWB via intrinsic motivation.

*Hypothesis 3c:* Congruence between recognition supplied and recognition needed will have a negative indirect effect on CWB via intrinsic motivation.

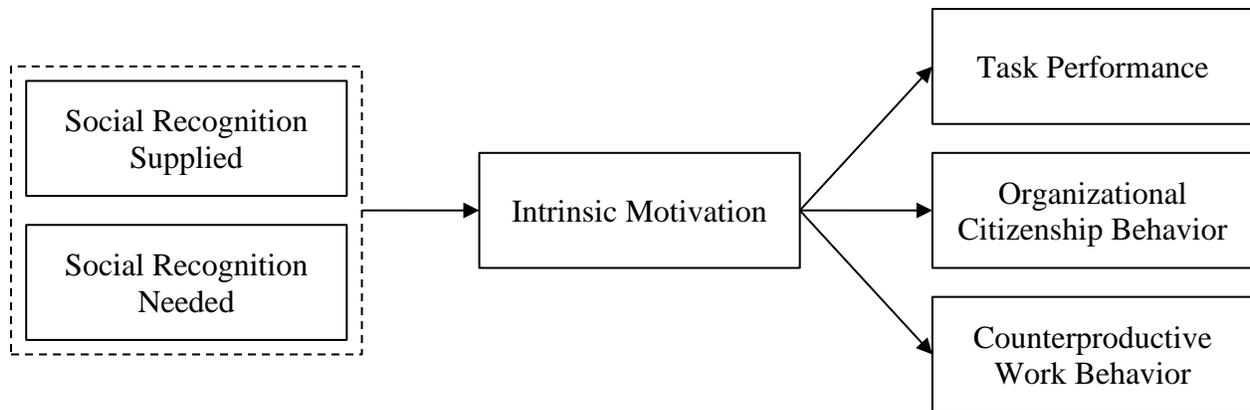


Figure 1. Proposed theoretical model.

## METHODOLOGY

### Participants and Procedure

We recruited participants through Amazon’s Mechanical Turk (MTurk) and collected data utilizing Qualtrics. We informed participants that data collection would occur over two periods. The decision to collect data over two periods was based on the assessment of common method bias (CMB; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Following best practices to minimize the presence of CMB, we collected data over two time periods (Podsakoff et al., 2003). Eligible participants were those who were U.S. citizens, 19 years of age or older, employed full time (working on average 30 or more hours a week), were not directly employed by Mechanical Turk, and had interactions with their direct supervisor regularly. Payment would only occur if participants passed all attention check items (two at time one, and two at time two), and completed the survey entirely. Participants were compensated \$0.50 for Time 1 and \$0.60 for Time 2. After a one-week time lag, only the participants who completed the Time 1 survey were invited to participate in a Time 2 survey. The variables measured at Time 1 include demographic variables, social recognition supplied, and social recognition needed scales. The variables measured at Time 2 include demographic variables, CWB, OCB, task performance, and intrinsic motivation. All participants for the Time 2 survey were under the same restrictions as Time 1.

For the time 1 data collection, a total of 485 workers passed attention check items, met eligibility requirements, and fully completed the survey. For the time 2 data collection, a total of 318 workers passed attention check items, met eligibility requirements, and fully completed the survey (response rate = 66%). For the respondents in our sample, the average age was 37 years old, 64% were male, 83% held a bachelor’s degree or higher, and the average hours of work were between 30 and 39 hours a week.

### Measures

All Time 1 measures used a Likert response scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Time 1 measures included social recognition supplied, social recognition needed, and the control variables employee age and employee gender. All Time 2 measures used a Likert response scale ranging from 1 (Never) to 5 (Every day), except for intrinsic motivation which used a Likert response format of 1 (Strongly Disagree) to 5 (Strongly Agree). Time 2 variables included intrinsic motivation and the three performance variables.

## **Social Recognition Supplied**

Respondents were asked, “Think about yourself when you answer these questions. Please indicate how much you agree with each of the following statements”. We used a modified version of the 3-item recognition scale from the Psychological Climate measure from Brown & Leigh (1996). We adjusted the items so that the focus would be on the perception of social recognition supplied by the supervisor. This measured the environment in the P-E fit relationship. The items included were “My supervisor does not take my work effort for granted” and “My supervisor appreciates the way I do my job” and “My supervisor recognizes the significance of the contributions I make”. The Cronbach’s alpha for this measure was .74.

## **Social Recognition Needed**

Similar to social recognition supplied, we used a modified version of the 3-item recognition scale from the Psychological Climate measure from Brown & Leigh (1996). We adjusted the items so that the focus would be on the social recognition needed by the employee. The items included were “I need my supervisor to not take my work effort for granted” and “I need my supervisor to appreciate the way I do my job” and “I need my supervisor to recognize the significance of the contributions I make”. The Cronbach’s alpha for this measure was .74.

## **Intrinsic Motivation**

We measured intrinsic motivation with the 4-item intrinsic motivation questions from Grant (2008). Participants were asked, “Why are you motivated to do your work?”. Sample items include “Because I enjoy the work itself” and “Because I enjoy it”. The Cronbach’s alpha for this measure was .87.

## **Task Performance**

Task Performance was measured using the 7 item in-role behavior items from Williams and Anderson (1991). Sample items included “I adequately completed my assigned duties” and “I met the formal performance requirements of my job”. The Cronbach’s alpha for this measure was .79.

## **Organizational Citizenship Behavior**

We measured OCB using the 10-item Organizational Citizenship Behavior Checklist (OCB-C) (Spector, Bauer, & Fox, 2010). Sample items included “I helped new employees get oriented to the job” and “I helped a co-worker who had too much to do”. The Cronbach’s alpha for this measure was .89.

## **Counterproductive Work Behavior**

Because CWB and OCB were assessed during Time 2, we asked respondents to think about “how often have you done each of the following things on your present job in the last week?” We measured CWB using the 10-item Counterproductive Work Behavior Checklist (CWB-C) (Spector, Bauer, & Fox, 2010). Sample items included “I purposely wasted my employer’s materials/supplies” and “I stayed home from work and said I was sick when I wasn’t”. The Cronbach’s alpha for this measure was .94.

## Analytic Strategy

### Tests of Congruence Effects

Our hypotheses specifically focus on the (in)congruence of social recognition supplied and social recognition needed and the congruence effects relationship with the mediator and dependent variables. In line with prior tests of (in)congruence, polynomial regression and response surface techniques will be used to test congruence effects (Baer et al., 2021; Carter & Mossholder, 2015; Edwards, 1994; Edwards & Cable, 2009). This method was used because it specifically tests the congruence effect between social recognition supplied and social recognition needed. We estimated the following polynomial regression equation (control variables omitted):

$$IM = b_0 + b_1RN + b_2RS + b_3RN^2 + b_4(RN*RS) + b_5RS^2 + e \quad (1)$$

IM represents the mediator (intrinsic motivation), RS represents social recognition supplied, and RN represents social recognition needed. We scale-centered (subtracted 4, as we were using a 7-point Likert scale) RS and RN to aid in the interpretation of the results (Edwards, 1994). Using the polynomial regression coefficients from this equation, we will plot a three-dimensional response surface graph with social recognition supplied (RS) and social recognition needed (RN) on the perpendicular x-axis', and intrinsic motivation (IM) on the vertical y-axis. The two perpendicular x axis' comprise the congruence (solid) line where social recognition supplied and social recognition needed are the same (i.e.  $RS = RN$ ), as well as the incongruence (dashed) line where social recognition supplied and social recognition needed are the same in absolute values, but differ with signs (i.e.,  $RS = -RN$ ) (Carter, Mossholder & Harris, 2018; Edwards & Cable, 2009).

To test hypothesis 1, which predicted that intrinsic motivation will be higher when social recognition supplied and social recognition needed are in congruence, compared to a deficiency or an excess of social recognition supplied, we tested the criteria for establishing the congruence effects as shown in Edwards and Cable (2009). First, results supporting hypothesis 1 would show the curvature along the incongruence line ( $RS = -RN$ ) on the response surface would be negative and significant (calculated as  $b_3 - b_4 + b_5$ ). This variable is referred to as the  $a_4$  variable (Shanock, Baran, Gentry, Pattison, & Heggstad, 2010). To provide further support of hypothesis 1, we examined the ridge of the response surface to see if it ran along the congruence line. A ridge running on the congruence line would be confirmed if the slope ( $p_{11}$ ) was 1 and the intercept ( $p_{10}$ ) was 0. As in prior research, we used 10,000 bootstrapped samples to calculate bias-corrected confidence intervals (CIs) for  $p_{11}$  and  $p_{10}$  (Baer et al., 2021; Carter et al., 2018).

To test hypothesis 2, which predicted that intrinsic motivation will be higher when social recognition supplied and social recognition needed are both high, compared to both low, we tested whether the values for intrinsic motivation increased moving along the congruence line ( $RS = RN$ ). This hypothesis focuses on how higher levels of recognition congruence will have a more positive impact on the dependent variable (intrinsic motivation) than will lower levels of recognition congruence. With regard to hypothesis 2, we examined the congruence line on the response surface where  $RN = RS$ . A significant positive slope (calculated as  $b_1 + b_2$ ) and non-significant curvature (calculated as  $b_3 + b_4 + b_5$ ) along the congruence line would indicate support for H2 (Edwards & Cable, 2009). These variables are referred to as the  $a_1$  (slope) and the  $a_2$  (curvature) variable (Shanock, Baran, Gentry, Pattison, & Heggstad, 2010).

## Tests of Mediation

First, to test the indirect effect on the relationship between social recognition supplied and needed congruence on the performance outcomes we used the block variable approach recommended by Edwards and Cable (2009). This will be achieved by combining the five polynomial regression terms ( $b_1$  through  $b_5$  in equation 1) to create a block variable (weighted linear composite where the weights are the values of the estimated regression coefficients). Second, we regressed the mediator (i.e., intrinsic motivation) on the block variable to obtain a standardized regression coefficient (path  $a$ ). Third, we regressed each of the three Y variables (i.e., task performance, OCB, CWB) on the mediator and the block variables. This regression provides us with standardized coefficients for the mediator on Y (path  $b$ ). Path  $a$ , path  $b$ , the indirect effect, and the standardized confidence intervals (bootstrap = 10,000) were calculated in SPSS (v28) using model 4 of the PROCESS Macro (v4.0) created by Andrew Hayes (2017).

## FINDINGS

Table 1 shows the means, standard deviations, correlations, and coefficient alphas for the variables in the study. Hypothesis 1 proposes that intrinsic motivation will increase as social recognition supplied and social recognition needed become more aligned and decrease as the difference between social recognition supplied and social recognition needed increases. As shown in Table 2, the curvature along the incongruence line ( $a_4$ ) is positive (curvature = 0.02, ns), and the slope ( $a_3$ ) along the incongruence line is significant (slope = -0.38,  $p < .001$ ). The curvature along the incongruence line was not negative, nor was it significant. To confirm these results of non-significance, we found that the first principal axis has a slope ( $p_{11}$ ) that is significantly different from 1 (95% CI = -0.38, -0.01) and an intercept ( $p_{10}$ ) that is not significantly different from 0 (95 % CI = -14.93, 23.70). Both of these results fail to provide support for the hypothesized congruence effect. Thus, hypothesis 1 is not supported.

Variable	M	SD	1	2	3	4	5	6	7	8
1. Age	37.00	9.99	--							
2. Gender <sup>a</sup>	0.64	0.48	-0.05	--						
3. Recognition Supplied	5.38	1.07	0.03	-0.08	(.74)					
4. Recognition Needed	4.94	1.26	0.02	-0.12*	0.19**	(.74)				
5. Intrinsic Motivation	5.11	1.50	0.08	-0.14*	0.38**	0.24**	(.87)			
6. Task Performance	4.69	0.75	.16**	-.13*	.22**	0.02	0.04	(.79)		
7. OCB	2.69	0.81	-0.09	0.06	0.05	0.16**	0.34**	-.25**	(.89)	
8. CWB	1.76	0.90	-0.10	0.14*	-0.16**	0.11	0.02	-.65**	0.51**	(.94)

Notes. N = 318. OCB = organizational citizenship behavior; CWB = counterproductive work behavior.

Values in parentheses and on the diagonal represent Cronbach's alphas.

<sup>a</sup> 0 = female; 1 = male

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

Table 1. Means, standard deviations, and intercorrelations among study variables.

Hypothesis 2 states that levels of intrinsic motivation will be higher when congruence between social recognition supplied and social recognition needed occurs at higher rather than lower levels. Table 2 shows that there is a positive slope ( $a_1$ ) and non-significant curvature ( $a_2$ ) along the congruence line (slope = .69,  $p < .001$ , curvature = -0.09, *ns*). These results indicate that social recognition supplied and social recognition needed congruence has a positive linear effect on intrinsic motivation. As shown in figure 2, intrinsic motivation increases along the congruence (solid) line on the response surface, thus supporting hypothesis 2. High levels of congruence have a more positive effect on intrinsic motivation than do low levels of congruence between perceived social recognition supplied by the supervisor and social recognition needed by the employee.

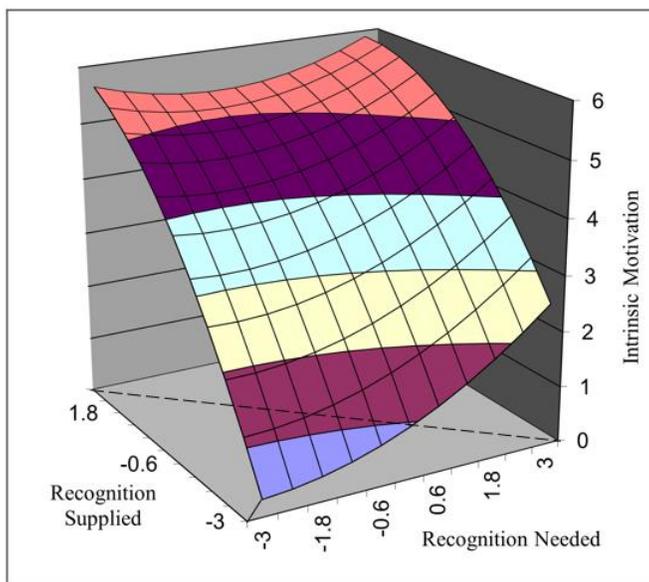


Figure 2. Congruence effects of social recognition supplied, and social recognition needed on intrinsic motivation. Note. Solid line = congruence line; Dashed line = incongruence line.

Variable	Intrinsic Motivation			
	Model 1		Model 2	
Constant ( $b_0$ )	4.96***	(0.34)	3.92***	(0.33)
Age	0.01	(0.01)	0.01	(0.01)
Sex	-0.42*	(0.17)	-0.28	(0.16)
Recognition needed (RN) ( $b_1$ )			0.21*	(0.09)
Recognition supplied (RS) ( $b_2$ )			0.72***	(0.14)
RN <sup>2</sup> ( $b_3$ )			0.06	(0.04)
RN x RS ( $b_4$ )			-0.06	(0.05)
RS <sup>2</sup> ( $b_5$ )			-0.09	(0.05)
R <sup>2</sup>	0.03		0.20	
$\Delta R^2$			0.18***	
Adjusted R <sup>2</sup>	0.02		0.18	
Incongruence (RN = -RS) line				
(a <sub>3</sub> ) Slope ( $b_1 - b_2$ )			-0.51**	(0.16)
(a <sub>4</sub> ) Curvature ( $b_3 - b_4 + b_5$ )			0.02	(0.09)
Congruence (RN = RS) line				
(a <sub>1</sub> ) Slope ( $b_1 + b_2$ )			0.93***	(0.17)
(a <sub>2</sub> ) Curvature ( $b_3 + b_4 + b_5$ )			-0.09	(0.07)
Response Ridge				
$p_{10}$ (intercept)	Estimate		95% Confidence Intervals	
	4.38		[-14.93, 23.69]	
$p_{11}$ (slope)	-0.19		[-0.38, -0.01]	

Note.  $N = 318$ . Unstandardized regression coefficients are reported.  $b_0$  through  $b_5$  correspond to coefficients in Equation 1. Standard errors are shown in parentheses. 95% confidence intervals in brackets.

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

Table 2. Polynomial regression results for social recognition supplied and social recognition needed congruence effects

Hypothesis 3 suggests that the congruence effects of social recognition supplied and social recognition needed on (a) task performance, (b) OCB, and (c) CWB are transmitted via intrinsic motivation. Table 3 reports the results for the indirect effects. The block variable for social recognition supplied and social recognition needed congruence is positively related to intrinsic motivation (path  $a = 0.42, p < .001$ ). Controlling for the block variable and the control variables of age and sex, intrinsic motivation is negatively associated with task performance (path  $b = -0.13, p < .05$ ) and positively associated with OCB (path  $b = 0.39, p < .001$ ) and not associated with CWB (path  $b = 0.09, ns$ ). The standardized confidence intervals of the indirect effect ( $ab$ ) of social recognition supplied on social recognition needed for task performance ( $ab = -0.05, 95\% \text{ CI} = -0.11, -0.00$ ) was significant but negatively related, thereby failing to support hypothesis 3a. Whereas the standardized confidence intervals of the indirect effect ( $ab$ ) of social recognition supplied on social recognition needed for OCB ( $ab = 0.17, 95\% \text{ CI} = 0.11, 0.23$ ) was significant and positive, thereby supporting hypothesis 3b. The standardized confidence intervals of the indirect effect ( $ab$ ) of social recognition supplied on social recognition needed for CWB ( $ab = 0.04, 95\% \text{ CI} -0.00, 0.08$ ) included zero, thereby failing to support hypothesis 3c.

Variable	Mediator		Job Performance					
	IM		Task Performance		OCB		CWB	
Age			0.16	(0.00)	-0.12*	(0.00)	-0.10	(0.01)
Sex			-0.12	(0.09)	0.10	(0.09)	0.14*	(0.11)
Coefficient of the block variable ( $a$ path)	0.42***	(0.12)						
Coefficient of IM, controlling for the block variable ( $b$ path)			-0.13*	(0.03)	0.39***	(0.03)	0.09	(0.04)
Indirect effect ( $ab$ ) of recognition congruence via IM			-0.05*		0.17***		0.04	
95% bootstrapped CIs for indirect effect ( $ab$ )			[-0.11, -0.00]	(0.03)	[0.11, 0.23]	(0.03)	[-0.00, 0.08]	(0.02)

Note.  $N = 318$ . Bootstrap = 10,000. Standardized regression coefficients. Standardized confidence intervals. Standard errors in parenthesis. 95% confidence intervals in brackets. IM = intrinsic motivation; OCB = organizational citizenship behavior; CWB = counterproductive work behavior.

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

Table 3. Results for indirect effects of social recognition supplied and social recognition needed congruence on job performance.

## DISCUSSION AND FUTURE RESEARCH

Social recognition remains an important but little researched resource, tool, and motivator in organizations. Consistent with the notion that social recognition is a resource that employees need, and supervisors can supply, we investigated the effects that the congruence between perceived social recognition supplied and needed had on intrinsic motivation and positive job performance outcomes. Based on the results of our study, a congruence between recognition supplied and recognition needed does not have an impact on intrinsic motivation. However, intrinsic motivation is higher for those with high levels of recognition congruence rather than low levels of recognition congruence. When looking at figure 2, you can see that there is a significantly positive slope along the congruence line. Based on the results from hypotheses 1 and 2, we can conclude that recognition congruence is only important for employees with a relatively high need for recognition.

Based on SDT theorizing, the fulfillment of basic psychological needs are what fuel intrinsic motivation (Gagne & Deci, 2005). However, it is likely that individuals get psychological need fulfillment through

different needs. For example, individual differences and the flexibility of job characteristics has a significant impact on an individual's motivation (Hackman & Oldham, 1980). Regarding psychological need fulfillment, the needs don't change, but the method to fulfill those needs could be different (Gagne & Deci, 2005). The non-support of hypothesis 1 and the support for hypothesis 2 highlight how the effect on intrinsic motivation is only important for those with a high recognition congruence. If individuals have a high need for recognition, fulfillment will likely result in increases in competence and relatedness. However, for individuals with low or even moderate levels of need for recognition, the satisfaction of this need won't have as big of an effect on the resulting competence and relatedness as other more important psychological needs. We found that social recognition supplied and social recognition needed fit has a positive linear effect on intrinsic motivation. This linear effect means that intrinsic motivation is higher when congruence between social recognition supplied and needed is higher, rather than lower. Because social recognition fosters an environment of relatedness and competence, higher levels of congruence between social recognition supplied and needed provided higher levels of intrinsic motivation (Deci & Ryan, 1985).

Our third hypotheses posited that the recognition congruence relationship would result in improved task performance and OCB, with a reduction in CWB. In line with prior research, high amounts of intrinsic motivation were positively related to OCB (Bolino, 1999; Finkelstein, 2011). This is because employees who are intrinsically motivated are likely to go above the call of duty and perform extra-role behaviors not explicitly laid out in their job description (Organ, 1988). When employees have their psychological needs fulfilled, they are more intrinsically motivated (Deci & Ryan, 2000). This increased intrinsic motivation, which comes from recognition congruence, results in increased extra role behaviors that themselves are worthy of recognition.

Surprisingly, intrinsic motivation was negatively related to task performance. Task performance relates to activities that are formally part of the job (Viswesvaran & Ones, 2000), because of this individuals could be extrinsically motivated (monetary compensation) and still perform the formally prescribed work requirements. However, some individuals may be intrinsically motivated for certain aspects of their work and let the less interesting portion of their work suffer (Fishbach & Woolley, 2022). This reduction in task performance could potentially be due to paying more attention to extra-role behaviors, as seen supported in this research. Another potential reason for the reduction in task performance could be the individual wanting recognition. As task performance is what is expected based on the job description (Borman & Motowidlo, 1993), recognition may only come when individuals go above the call of duty. Thus, the need for recognition may result in individuals performing activities that are extra-role at the expense of in-role behaviors.

Lastly, we predicted that CWB would decrease as a function of recognition congruence and intrinsic motivation. However, the data failed to support this conclusion. Based on these findings, we can conclude that recognition congruence does more to reinforce positive extra-role behaviors rather than minimize negative behaviors. This is likely because recognition comes from an appreciation for positive behavior, so individuals with a high need for recognition focus on doing more good and potentially have less time for the bad. Further research is needed to capture the potentially dampening effect that recognition from supervisors has on employee CWB.

Social recognition is a concept that has not received much attention in the academic literature. We call on all researchers to examine this concept and its various relationships more fully. We lay out three specific avenues for future research. First, future research needs to examine the individual differences that make a high or low need for recognition. One possible explanation may be someone who needs reinforcement to feel confident to do their job. Once this reinforcement is made, they can exhibit the high-quality work that they can perform. On the other side, could too much recognition potentially turn off a worker by making them feel uncomfortable? Based on our results, excess recognition supplied is associated with higher

levels of intrinsic motivation. Further research is needed to assess if too much recognition could result in lower levels of intrinsic motivation. Second, this dyadic relationship needs to be expanded to the team and potentially even individual level. Teams could provide recognition to an individual or the recognition from the supervisor in front of the team may yield differing results. Additionally, how does recognition to a team impact the individuals on that team or the team as a whole? Lastly, we call for additional conceptual clarification into non-financial social recognition. Further theoretical and measurement development is needed to fully capture the importance of recognition in organizations.

Our study has some potential limitations. First, the use of an online sample pool such as MTurk has its inherent limitations. Examples of these limitations include bots (automated and artificial responses), individuals falsifying their demographic information (such as location), and overall poor-quality responses (Chandler, Mueller, & Paolacci, 2014; Kennedy, Clifford, Burleigh, Waggoner, Jewell, & Winter, 2020). However, when proper attention checks and quality controls are put into place, results can provide researchers with reliable data (Kennedy et al., 2020). One study even showed that MTurk respondents provided better quality data and were more attentive to instructions than a college's undergraduate subject pool (Hauser & Schwarz, 2016). This study was able to mitigate these risks by ensuring high quality participants (greater than a 95% acceptance rating) and filtering out results that failed attention checks. No matter the strengths of the current research, further research would want to empirically validate our results in an organizational context. Second, because recognition is a relatively underexplored concept, we used an existing measure that may not exactly line up with the definition of social recognition that was used in this study. The measure we used to measure social recognition supplied and needed was a dimension of psychological climate in Brown and Leigh (1996). While there is some overlap with the accepted definition provided by Peterson and Luthans (2006) and the measures used, future researchers should note these differences in measures and definition. Lastly, we collected performance data from a single and subjective source. We took steps to minimize the risk of CMB to ensure data quality (Podsakoff et al., 2003), however, future research will want to address this by using both objective and subjective measures of performance and recognition (Wall et al., 2004).

## CONCLUSION

The examination of social recognition in the work context is vastly unexplored. We contributed to the social recognition literature by beginning to map out one way that social recognition can have an effect on individuals and organizations. Future research should explore the effects that social recognition has on other outcomes. By using polynomial regression and surface response methodology (Cable & Edwards, 2009), we examined the effects that congruence between perceptions of social recognition supplied and social recognition needed had on task performance, OCB, and CWB, via intrinsic motivation. We invite researchers to investigate this underexplored research stream and uncover the positive (and negative) results stemming from social recognition.

This research scratches the surface of the function of social recognition in organizations. This important study seeks to better understand the impact of fitting the social recognition needed by an employee to the social recognition provided by a supervisor, on intrinsic motivation and job performance. While our first hypothesis suggesting that a fit between social recognition needed and social recognition supplied was not supported and needs additional study, we did find support for our assertion that social recognition supplied and social recognition needed congruence has a positive linear effect on intrinsic motivation (hypothesis 2). In addition, we found the hypothesized positive link between social recognition fit and organizational citizenship behaviors via intrinsic motivation (3b). These findings open the door for further study of how and why organizations should seek to match employee social recognition needs to social

recognition supplied by the supervisor, as firms continue to operate and seek an advantage in a competitive environment.

For managers and organizations, this research sheds light on how to improve intrinsic motivation and extra-role behaviors. Social recognition is a free resource that can improve performance (Peterson & Luthans, 2006). When managers are more aware of the needs of their employees need for recognition, they can provide such a level of recognition. However, our findings show that this may be a double-edged sword where recognition congruence leads to increased extra-role behaviors but lower task performance. If recognition is given, an expectation should be set that the appreciation for a job well done includes completing the day-to-day aspects of the job. Managers and organizations as a whole can benefit from the use of social recognition in improving employee performance.

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