

Perceived Coworker Support and Task Interdependence: A Moderated Model of Police Officers' Performance

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ABSTRACT

The authors hypothesized that felt responsibility mediated the relationship between support and interdependence variables (perceived coworker support, task interdependence) and work outcome variables (job satisfaction, inrole performance, extrarole performance). Preliminary path analysis testing shows support for the proposed relationships. Additionally, the authors' propose that once the analysis is complete, perceived co-worker support will be found to moderate the relationship between task interdependence and felt responsibility.

INTRODUCTION

Law enforcement is a unique profession. The public expects police officers to serve and protect the community by placing themselves between criminals and law-abiding citizens. Other than the military profession during combat operations, few professions have a similar combination of relatively low pay and relatively high risk. Ethnographic presentations of the police profession (van Maanen, 1975) and reality television shows such as "Cops" give the impression that law enforcement is a mixture of monotonous paperwork and tedious traffic stops, punctuated here and there with occasional moments of terror and adrenaline.

Perhaps law enforcement's most distinguishing trait is the interdependent nature of the tasks involved. Regardless how a police organization is structured—into teams, partners, or individual officers—members of the law enforcement profession must be able to rely on their fellow

officers to come to their aid. The response to a call for backup in an emergency must be proficient and swift. Most professions require the trust of peers; but law enforcement may be unique in the extent to which it is essential to survival.

BACKGROUND AND HYPOTHESES

Purely utilitarian views of human nature do not explain why some individuals in interdependent social situations--such as police departments--engage in cooperative behaviors that do not directly serve their own self-interest. Whenever interdependence exists in a social situation, there is always the risk of "defection" (as game theorists term the phenomenon), social loafing (George, 1995), shirking, or similar "propensities to withhold effort." (Kidwell Jr & Bennett, 1993). Nevertheless, as evidenced by the literature on prosocial behavior (Brief & Motowidlo, 1986) extrarole behaviors (Pearce & Gregersen, 1991), and organizational citizenship behavior (Organ, 1990), in certain circumstances there exists a countervailing "propensity to provide extra effort." Under what circumstances will this propensity to provide extra effort exist? This paper attempts to answer this question in the context of the law enforcement profession.

Task interdependence is a job attribute that has demonstrated motivational effects in many studies (Kiggundu, 1981, 1983; Van der Vegt & Van De Vliert, 2005; Wageman, 1995). More specifically, studies have reported a positive relationship between task interdependence and extrarole or cooperative behavior (Anderson & Williams, 1996; Pearce & Gregersen, 1991; Wageman & Baker, 1997). While some of these researchers have divided task interdependence into "initiated" and "received" components, for our purposes we combined these into "reciprocated" task interdependence, as developed by Pearce and Gregersen (1991), accepting their argument that initiated and received interdependence have too high a covariance to be viewed as independent constructs. Regardless of the type of task interdependence studied, one theoretical basis as to why task interdependence leads to cooperative behavior is that the interactive nature of the tasks contributes to experienced responsibility for the other's outcomes (Kiggundu, 1983; Pearce & Gregersen, 1991). A second theoretical grounding for the motivating effects of task interdependence relies on the view that an employee with a long-term time horizon will contribute to other workers efforts if they believe their coworkers will reciprocate. This common human tendency has been incorporated into organizational behavior literature from sociology, namely from social exchange theory (Blau, 1964), and the norm of reciprocity (Gouldner, 1960).

Nevertheless, while task interdependence measures the extent that workers are dependent upon each other, it does not measure the extent to which workers actually expect that their efforts will be reciprocated. Therefore, while many studies have found a positive relationship between task interdependence and cooperative behaviors, we posit that there is an interaction between task interdependence and the "expectation of reciprocation" unaccounted for in previous studies. Absent this expectation, task interdependence may not have the expected positive effects on cooperative behavior. In fact, if an individual expects that cooperative behaviors will not be reciprocated, task interdependence may lead to competitive behaviors (such as hoarding of resources), rather than cooperative behaviors. We propose that a perceived support variable can serve as a proxy for "expectation of reciprocation" in this context. Analogously, perceived organizational support (POS) correlates with organizational commitment (Bishop, Scott, &

Burroughs, 2000; Eisenberger, Huntington, Hutchison, & Sowa, 1986). In a similar way, perceived coworker support should reflect the positive affect (or lack thereof) that develops from repeated social interactions that do (or do not) result in reciprocated helping activity. Individuals that perceive high support from their peers will feel a responsibility or obligation to reciprocate that support. This appears to be a “moderating” relationship (Baron & Kenny, 1986). In our model, perceived coworker support moderates the relationship between task interdependence and felt responsibility. Therefore, to investigate to what extent the effects of task interdependence on felt responsibility may depend on the degree of perceived coworker support, we tested the following:

Hypothesis 1a: Task interdependence will be positively related to felt responsibility.

Hypothesis 1b: Perceived coworker support will be positively related to felt responsibility.

Hypothesis 1c: [TO BE TESTED IN FUTURE] Perceived co-worker support moderates the relationship between task interdependence and felt responsibility. Higher levels of perceived co-worker support will be associated with a stronger relationship between task interdependence and felt responsibility.

Pearce and Gregersen (1991) found that felt responsibility mediated the relationship between task interdependence and extrarole behaviors. Since we believe that perceived coworker support moderates the relationship between task interdependence and felt responsibility, we expect felt responsibility to mediate the relationship between perceived coworker support and extrarole behaviors as well. Presumably, felt responsibility for other’s work would also have a positive relationship with inrole behavior (job performance), not just extrarole behavior. For example, in most cases, a supervisor witnessing helping behaviors on the job would be expected to view this activity favorably. For added theoretical support for this view, we turned to job characteristics theory, namely, the Job Characteristics Model (JCM) (Hackman & Oldham, 1975; Hackman & Oldham, 1976).

Hackman and Oldham (1975, 1976) developed a widely tested theory of job design and motivation in which job characteristics, such as autonomy and skill variety, give rise to psychological states, such as feelings of responsibility for work, which in turn elicit personal work outcomes, such as satisfaction and motivation (See figure 1 for a representation of the original model). Previous research into this question has suggested that a sense of “felt responsibility” toward one’s job (Hackman & Oldham, 1976; Salancik, 1977) is fundamental to personal work outcomes such as commitment or satisfaction. Therefore, we feel that felt responsibility should be positively related to job performance and job satisfaction, as well as extrarole behavior. We used a measure of organizational citizenship behavior (OCB) (Wayne, Shore, & Liden, 1997; Williams & Anderson, 1991) to reflect extrarole behaviors for the purposes of this study.

Hypothesis 2a: *Felt responsibility will be positively related to job performance.*

Hypothesis 2b: *Felt responsibility will be positively related to organizational citizenship behavior.*

Hypothesis 2c: *Felt responsibility will be positively related to job satisfaction.*

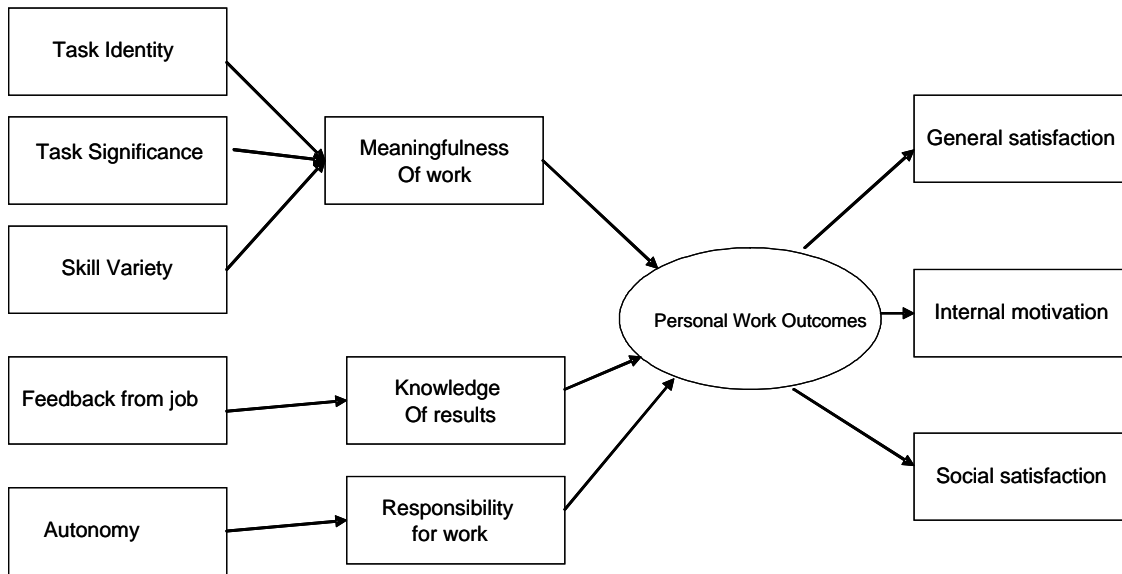


Figure 1. The Original Job Characteristics Model (Hackman & Oldham, 1975, 1976)

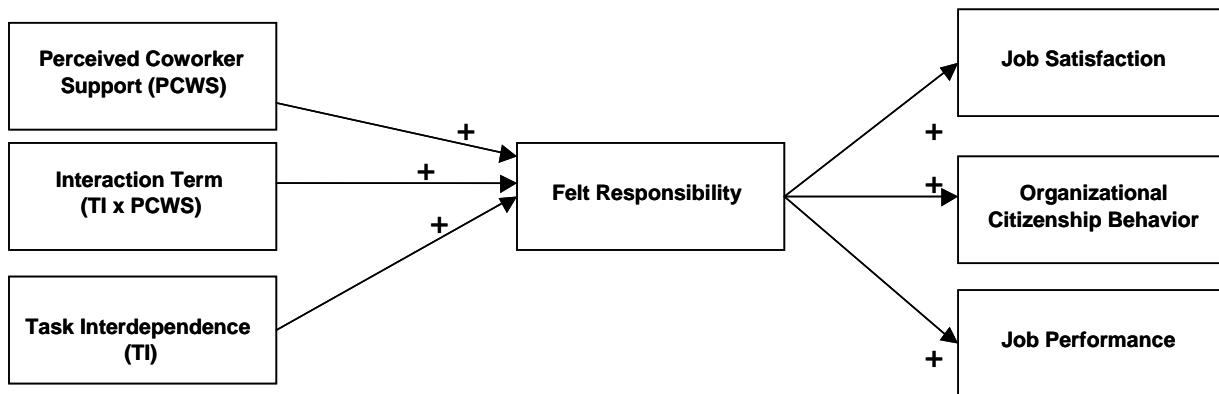


Figure 2. Original hypothesized model.

For the first phase of this study, the results are constrained by sample size limitations. Therefore, the interaction term was not tested. Additionally, a direct relationship between perceived coworker support and job satisfaction was discovered from preliminary results (post hoc) that was too strong to ignore. Therefore, this relationship is included in the tested model (figure 3); however, no hypothesis is made regarding this relationship at this time.

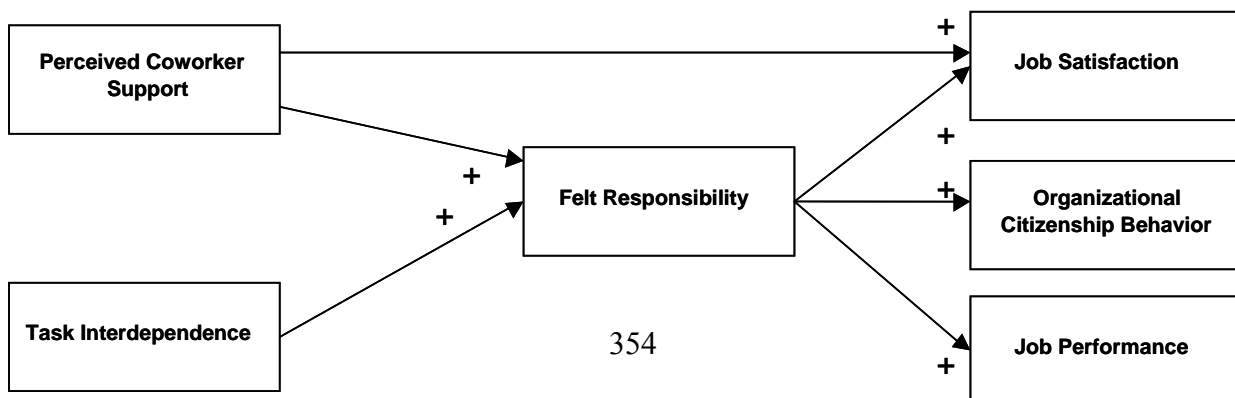


Figure 3. Model as tested.

For the theoretical reasons supplied above for the direct hypotheses, the paths in the model imply numerous indirect hypotheses. The indirect hypotheses are presented in list form for brevity.

Hypothesis 3a: *The indirect effect between task interdependence and job performance through felt responsibility will be significant.*

Hypothesis 3b: *The indirect effect between task interdependence and organizational citizenship behavior through felt responsibility will be significant.*

Hypothesis 3c: *The indirect effect between task interdependence and job satisfaction through felt responsibility will be significant.*

Hypothesis 4a: *The indirect effect between perceived coworker support and job performance through felt responsibility will be significant.*

Hypothesis 4b: *The indirect effect between perceived coworker support and organizational citizenship behavior through felt responsibility will be significant.*

Hypothesis 4c: *The indirect effect between perceived coworker support and job satisfaction through felt responsibility will be significant.*

Hypothesis 5a: *The indirect effect between the interaction of task interdependence and perceived coworker support (TI x PCWS) and job performance through felt responsibility will be significant.*

Hypothesis 5b: *The indirect effect between the interaction of task interdependence and perceived coworker support (TI x PCWS) and organizational citizenship behavior through felt responsibility will be significant.*

Hypothesis 5c: *The indirect effect between the interaction of task interdependence and perceived coworker support (TI x PCWS) and job satisfaction through felt responsibility will be significant.*

METHOD

Participants

This study was conducted in several police departments in the southern United States. A total of 108 police officers participated. Responses were self-reports with the exception of job performance and organizational citizenship behavior, which were supervisor reports.

Measurement

Items were measured using seven-point Likert scales, ranging from “strongly agree” to “strongly disagree” with the exception of the job satisfaction scale, with response options ranging from “extremely satisfied” to “extremely dissatisfied.” Descriptive statistics are presented in Table 1.

Perceived Coworker Support. PCWS was measured by 9 items ($\alpha=.91$) developed by (Bishop, Daily, Scott, & Lara, 2005).

Task Interdependence. Task interdependence was measured with 5 items ($\alpha=.83$) adapted from Pearce and Gregersen (1991).

Felt Responsibility. Felt Responsibility was measured with 4 items ($\alpha=.85$) adapted from (Bishop et al., 2005).

Job Satisfaction. Job Satisfaction ($\alpha=.91$) was measured with a 10 item survey. Three of the items came from the Job Diagnostic Survey (Hackman & Oldham, 1980) and three additional items were based on the Job Characteristics Model (Hackman & Oldham, 1976).

Job Performance. Supervisors rated subordinate's job performance ($\alpha=.96$) using a survey with 8 total items. Some items were from Williams and Anderson (1991) and an additional item measuring the employee's overall performance was from Wayne, Shore, and Liden (1997).

Organizational Citizenship Behavior. Organizational Citizenship Behaviors (OCBs) ($\alpha=.83$) were measured with five items. Four came from Wayne, Shore, and Liden (1997), and one came from Williams and Anderson (1991) in their organizational citizenship behaviors directed toward individuals (OCBI) scale.

Statistical Analysis

Due to insufficient sample size, for preliminary model testing, path analysis was used in lieu of structural equation modeling.

	Variable	N	M	SD	1	2	3	4	5	6
1	Task Interdependence	107	5.69	0.97	(.83)					
2	Perceived Coworker Support	108	5.31	0.9	0.21*	(.91)				
3	Felt Responsibility	108	5.91	1.00	0.40***	0.38***	(.85)			
4	Job Satisfaction	108	5.83	0.90	0.29**	0.60***	0.43***	(.96)		
5	Job Performance	108	5.10	1.00	0.16	0.16	0.40***	0.24*	(.83)	
6	Organizational Citizenship Behavior	108	5.39	1.03	0.19*	0.14	0.22*	0.15	0.67***	(.91)

*** p<.001; **p<.01; *p<.05; Coefficient alphas are on the diagonals.

Table 1. Means, Standard Deviations, Reliabilities, and Correlations among the Scale Variables

ITEMS	FACTORS			
	1	2	3	4
js1	0.25	0.00	-0.61	-0.13
js3	-0.08	0.05	-0.72	-0.01
js4	-0.05	0.04	-0.78	0.03
js5	0.24	0.06	-0.62	-0.02
js6	0.11	0.24	-0.64	-0.02
js7	0.38	-0.03	-0.48	0.22

ITEMS	FACTORS			
	1	2	3	4
js8	0.02	0.09	-0.73	-0.13
js9	0.24	0.08	-0.67	-0.07
js10	-0.09	-0.09	-0.54	-0.07
fr1	0.19	0.12	0.01	-0.63
fr2	0.13	-0.05	-0.12	-0.62
fr3	-0.02	0.00	-0.03	-0.84
fr4	-0.04	-0.01	0.04	-0.86
pcs1	0.68	-0.01	-0.22	-0.01
pcs2	0.69	-0.13	-0.16	-0.04
pcs3	0.77	-0.02	-0.08	-0.02
pcs4	0.57	-0.17	-0.16	-0.16
pcs5	0.65	0.13	0.02	-0.13
pcs6	0.65	0.22	-0.02	-0.10
pcs7	0.76	0.21	0.18	0.02
pcs8	0.78	-0.06	0.05	0.02
pcs9	0.55	-0.16	-0.20	-0.06
ti1	0.17	0.52	-0.13	-0.18
ti2	0.16	0.74	0.03	0.02
ti3	0.02	0.75	0.02	0.02
ti4	-0.14	0.49	-0.08	-0.35
ti5	-0.15	0.69	-0.15	0.00

JS = job satisfaction items; FR = felt responsibility items; PCS = perceived coworker support items; TI = task interdependence items

Table 2. Exploratory Factor Analysis of Officers' items

ITEMS	FACTORS	
	1	2
perf1	0.82	-0.01
perf2	0.87	0.01
perf3	0.98	-0.14
perf4	0.78	0.10
perf5	0.86	-0.06
perf6	0.73	0.18
perf7	0.77	0.10
perf8	0.78	0.13
ocb1	0.10	0.65
ocb2	-0.08	0.84
ocb3	0.11	0.62
ocb4	0.12	0.63
ocb5	-0.04	0.63

PERF = job performance items; OCB = organizational citizenship behavior items

Table 3. Exploratory Factor Analysis of Supervisors' items

RESULTS

Hypothesis Testing

[Preliminary results of path analysis; moderation effects will be tested later, also sample size will increase in the future.]

Hypothesis 1a stated that task interdependence would be positively related to felt responsibility. The path was positive and significant ($b=.35$, $p<.01$) indicating support for hypothesis 1a. Hypothesis 1b stated that task interdependence would be positively related to felt responsibility. The path was positive and significant ($b=.34$, $p<.01$) indicating support for hypothesis 1b. Hypothesis 1c stated that perceived co-worker support moderates the effects of task interdependence. This hypothesis has not been tested yet.

Hypothesis 2a, 2b, and 2c posited that felt responsibility would be positively related to job performance ($b=.36$, $p<.01$), organizational citizenship behavior ($b=.22$, $p<.05$), and job satisfaction ($b=.25$, $p<.05$) respectively. All of these hypotheses were supported.

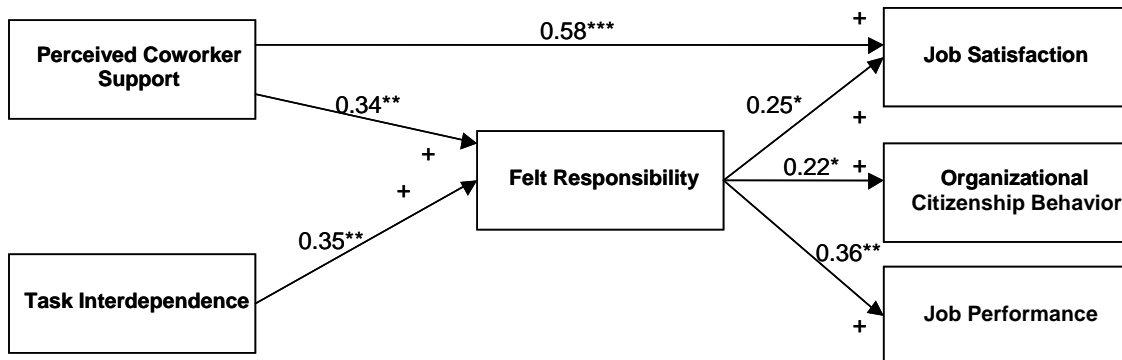
Indirect effects

Mediating effects were calculated using techniques recommended by Baron and Kenney (1986). The indirect path coefficients and standard errors were derived from the reduced form structural equations given in the Lisrel 8 output.

The indirect effect of task interdependence on job performance through felt responsibility ($b=.13$, $p<.05$) was positive and significant. Therefore, hypothesis 3a was supported. The indirect effect of task interdependence on organizational citizenship behavior through felt responsibility was non-significant. Therefore, hypothesis 3b was not supported. The indirect effect of task interdependence on job performance through felt responsibility ($b=.088$, $p<.05$) was positive and significant. Therefore hypothesis 3c was supported.

The indirect effect of perceived coworker support on job performance through felt responsibility ($b=.12$, $p<.05$) was positive and significant. Therefore, hypothesis 4a was supported. The indirect effect of perceived coworker support on organizational citizenship behavior through felt responsibility was non-significant. Therefore, hypothesis 4b was not supported. The indirect effect of perceived coworker support on job satisfaction through felt responsibility ($b=.153$, $p<.05$) was positive and significant. Therefore, hypothesis 4c was supported.

Hypothesis 5a, 5b, and 5c involve the indirect effects from the interaction term posited in hypothesis 1c. These hypotheses have not been tested yet.



*** p<.001; ** p<.01; * p<.05; GFI=.99

DISCUSSION AND CONCLUSION

[Will include a restatement of the purposes of the study, why it was important, what was found, what wasn't found, why, limitations, future research, bottom line.]

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