

# ***Effects of Leader Contingent and Noncontingent Reward and Punishment Behaviors on Subordinate Performance and Satisfaction<sup>1</sup>***

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*This study investigated the nature of the relationships between leader reward and punishment behaviors and subordinate performance and satisfaction. Only performance-contingent reward behavior was found to affect subordinate performance significantly. Positive relationships were found between leader contingent reward behavior and employee satisfaction. Contingent punishment had no effects on subordinate performance or satisfaction.*

The proposition that leaders who employ performance-contingent rewards and punishments are more effective than are leaders who use noncontingent rewards and punishments plays a prominent role in many contemporary theories of leadership. Hunt and Osborn (1980) have argued that noncontingent rewards are less likely to produce desirable subordinate behaviors and attitudes than are contingent rewards. The path-goal model of leadership (House, 1971; House & Mitchell, 1974) suggests that high performance should result when a strong relationship exists between performance and valued rewards. Moreover, when these conditions exist, high performers should receive rewards of greater magnitude and frequency and therefore should express more positive attitudes than would

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low performers. Rewards also play a central role in the social exchange approach to leadership proposed by Höllander (1978). He notes that "a fair exchange . . . involves . . . a climate in which a leader sees that equitable rewards are provided. Basic to the exchange process is the belief that rewards, such as recognition, will be received for benefits given" (1978, p. 72). Finally, the importance of a leader's use of contingent (as opposed to noncontingent) reward and punishment behaviors is recognized in the recently developed operant theories of leadership (Scott, 1977; Sims, 1977). Scott (1977), for example, proposes that the administration of positive reinforcers contingent upon a subordinate's behavior is often essential to the shaping and maintenance of behaviors important to organizational success.

To the knowledge of the present authors, however, only one study (Hunt & Schuler, 1976) has attempted to examine explicitly the relative effects of all four of these leader behaviors on employee performance and attitudes. Hunt and Schuler (1976) found support for the propositions: (1) that contingent reward and punishment behaviors on the part of leaders are associated more with subordinate performance and attitudes than are noncontingent reward and punishment behaviors, (2) that leader contingent reward behavior has more positive relationships with employee performance and satisfaction than does leader contingent punishment behavior, and (3) that noncontingent reward behavior is more positively related to employee performance levels and satisfaction than is noncontingent punishment behavior.

With the importance that has been accorded to the administration of contingent and noncontingent rewards and punishments in contemporary theories of leadership, it is surprising that only one study has been conducted to assess the relative efficacy of these leader behaviors. Unfortunately, the measures employed by Hunt and Schuler (1976) in their study to assess noncontingent reward and punishment behaviors on the part of the leader were not designed originally for this purpose. Their findings need further support, using other measures in other sample populations, before they can be generalized with confidence. Thus, the purpose of the study reported here was to examine the effects of a leader's contingent and noncontingent reward and punishment behaviors on his/her subordinates' performance and attitudes. This study does employ measures designed explicitly to assess the effects of a leader's use of noncontingent rewards and punishments. Furthermore, it takes into account the moderating effect of performance on leader behavior-subordinate satisfaction relationships. As noted by Greene and Podsakoff (1978) and Baird and Hamner (1979), the differentiation between low and high performers is crucial if one is to determine whose attitudes are influenced the most by the reward systems employed by managers.

### **Background and Hypotheses**

There exists a substantial amount of evidence (Baird & Hamner, 1979; Cherrington, Reitz, & Scott, 1971; Greene, 1973, 1976; Greene &

Podsakoff, 1978; Lawler, 1971) that rewards (such as pay) made contingent upon performance cause subsequent increases in performance and variability in satisfaction according to performance level. That is, the satisfaction expressed by high performers increases, but that expressed by low performers decreases. The effects of punishment are not quite as straightforward (see Sims, 1980, for a review of this literature), but the evidence does suggest that the administration of aversive events contingent upon poor performance does have a low, positive relationship with the satisfaction expressed by higher level supervisors and administrators. The effects of contingent punishment (CP) on performance, however, are quite mixed. Hunt and Schuler (1976) and Sims (1977) found no relationship between contingent sanctioning behavior and subordinate performance. Sims and Szilagyi (1975) found significant negative relationships between CP and the performance of administrative and service personnel, but no relationships between CP and the performance of professional and technical workers. Greene (1976), however, reported a significant positive cross-lagged relationship between CP and subordinate performance. The diversity of these results makes it difficult to predict the effects of CP on subordinate performance. The most reasonable hypothesis therefore would appear to be that contingent punishment has no effect on subordinate performance. The above discussion leads to several hypotheses regarding the relationship between leader performance-contingent and non-contingent reward and punishment behaviors and employee attitudes and performance:

*H1A: A positive relationship exists between leader performance-contingent reward behavior and subordinate performance and satisfaction.*

*H1B: Leader performance contingent punishment behavior is not related to subordinate performance, but is positively related to subordinate satisfaction.*

*H1C: Leader noncontingent reward behavior is unrelated to subordinate performance, but is positively related to subordinate satisfaction.*

*H1D: A negative relationship exists between leader noncontingent punishment and subordinate performance and satisfaction.*

When the moderating effect of performance is considered, several more hypotheses can be stated:

*H2A: Performance will be a positive moderator of the relationship between leader contingent reward behavior and subordinate satisfaction.*

*H2B: Performance will be a positive moderator of the relationship between leader performance contingent punishment behavior and subordinate satisfaction.*

*H2C: Performance will be a negative moderator of the relationship between leader noncontingent reward behavior and subordinate satisfaction.*

*H2D: Performance will be a negative moderator of the relationship between leader noncontingent punishment behavior and subordinate satisfaction.*

## Method

### Sample

The sample consisted of 72 supervisors and administrators employed in a division of a large nonprofit organization located in the western part of the United States. The data were obtained by means of a questionnaire that was completed at an annual organizationwide planning conference and collected immediately after it was administered. Questionnaires were obtained from 101 subjects. Performance evaluations were collected from supervisors of 72 of these subjects within two weeks. The respondent sample was predominately male (65 percent), young (mean age of 27.9), highly educated (over 90 percent had a college degree), and had been employed with the organization for an average of approximately 4½ years.

### Measures

*Leader Reward and Punishment Behavior.* A 23-item questionnaire was utilized to measure the four leader behavior variables considered in this study. Many of these items were taken from the "Contingency Questionnaire" that was initially developed by Johnson, Scott, and Reitz and reported in both Johnson (1970) and Reitz (1971). In addition, several items developed by Podsakoff and Skov (unpublished research) in order to assess a leader's use of both noncontingent reward and punishment behaviors were included. A 7-point Likert scale ranging from "strongly disagree" to "strongly agree" was employed.

A factor analysis of the leader behavior items used in this study revealed a 4-factor solution that accounted for 65 percent of the common variance, with the pattern of the factor loadings congruent with the a priori assignment of items of the four scales. (The factor analytic solution from this study, as well as from two other larger samples— $N=191$ ,  $N=198$ —that produce similar factor structures, is available on request from the authors.) Performance-contingent reward behavior (CR) (10 items) measures the degree to which a leader administers positive reinforcers, such as recognition, acknowledgement, and commendations, contingent upon high performance. CP (5 items) measures the degree to which a leader administers punitive events such as reprimands and disapproval contingent upon poor performance. Noncontingent punishment behavior (NCP) (5 items) is a measure of the degree to which a supervisor uses punitive events independent of the performance levels of his/her subordinates. Noncontingent reward behavior (NCR) (3 items) is a measure of the degree to

which a leader rewards his/her subordinates independent of their performance levels. The coefficient alphas for these four measures of leader behavior were .93, .84, .83, and .80, respectively. Performance contingent punishment, noncontingent punishment, and noncontingent reward behavior were all found to be independent of each other (mean correlation = -.05), but performance-contingent reward behavior was significantly related to performance-contingent punishment (.25), noncontingent reward (.38), and noncontingent punishment behavior (-.48).

*Subordinate Performance.* Employee performance was assessed by having each subordinate's immediate supervisor evaluate him/her on five dimensions of work performance, including doing more work than is required, setting high goals for themselves, the attainment of goals they had set, and the effectiveness of time spent in doing their work. The responses were scaled from 1 (extremely ineffective in use of time at work or strongly disagree) to 7 (extremely effective in use of time at work or strongly agree). Factor analysis of these measures of performance resulted in a single factor solution with a Cronbach alpha reliability coefficient of .93.

*Job Satisfaction.* Subordinate satisfaction was assessed using the Job Descriptive Index (JDI) developed by Smith, Kendall, and Hulin (1969). The JDI measures employee satisfaction over five dimensions: satisfaction with work, supervision, pay, co-workers, and the opportunities for advancement in the job. Extensive research utilizing the JDI has shown it to be both a reliable and a valid measure of satisfaction. In the present study, the Cronbach alpha reliability coefficients extended from .64 to .86 for all five satisfaction dimensions.

### Analytical Procedures

Because of significant intercorrelations among the leader's behaviors, the procedure selected to examine the relationships between leader behaviors and subordinate performance and satisfaction was a third order partial correlation analysis (controlling for the three leader behaviors not under examination), which has been recommended in such circumstances by House and Dessler (1974). To evaluate the potential moderating effect of performance on the relationship between leader behaviors and subordinate satisfaction, moderated regression analysis was used (Cohen & Cohen, 1975; Arnold, 1982). Arnold (1982) identifies two types of moderating relationships: moderation of the degree of the relationship between variables and moderation of the form of the relationship between variables. Subgroup analysis is appropriate to determine moderation of the degree of the relationship whereas moderated regression tests are suitable for differences in the form of the relationship. In this study, performance is hypothesized to change the form of the relationship. Therefore moderated regression is the appropriate technique. Moderated regression involves the hierarchical regression of the dependent variable on the independent variable, the moderating variable, and the product of the

independent and moderator variables. If the interaction term contributes significantly to  $R^2$  for the regression, an interaction effect has been identified or, in this case, there is an interaction between the leader behaviors and performance in their effect on satisfaction.

## Results

Table 1 presents the means, standard deviations, and intercorrelations of the variables used in this study. The results of the partial correlational analyses used to test Hypotheses 1A-D are presented in Table 2. The results for testing Hypotheses 2A-D are shown in Table 3. An examination of the tables leads to the following assessment of the hypotheses.

The hypothesized positive relationship (H1A) between leader contingent reward behavior and performance, as well as satisfaction with work, supervision, and advancement opportunities, was supported. No significant relationships between CR and satisfaction with either co-workers or pay were found.

In support of H1B, no relationship was found between leader CP behavior and performance. However, no support for the hypothesized positive effect of CP on subordinate satisfaction was provided, thus suggesting that contingent punishment behavior has little effect on either subordinates' performance or their satisfaction.

As was predicted in H1C, leader NCR was found to be unrelated to subordinate performance. Contrary to the hypothesis, however, no significant relationship was found between NCR and subordinate satisfaction.

The hypothesized negative relationship between leader NCP behavior and satisfaction with work, supervision, and co-workers was supported (H1D). The predicted negative relationship between NCP and performance was not confirmed, although the partial correlation coefficient of  $-.18$  approached significance ( $p = .07$ ).

Support for the hypothesis that a stronger relationship would exist between CR and satisfaction for high performers than for low performers (H2A) was provided for two of the five satisfaction measures. A significant positive interaction between contingent reward behavior and performance was found for subordinates' satisfaction with their work and pay.

In support of Hypothesis 2B, a significant positive interaction between leader contingent punishment behavior and performance was found for subordinates' satisfaction with co-workers. Contrary to this hypothesis, however, a significant negative interaction between CP and performance was found for satisfaction with pay and advancement, thus suggesting that high performers are more dissatisfied than are low performers with their salaries and promotion opportunities when leaders use contingent punishment. Taken as a whole, these results provide little support for the hypothesized moderating effects of performance levels on the CP-subordinate satisfaction relationships.

**Table 1**  
**Variable Means, Standard Deviations, and Intercorrelations**  
**(N = 72)**

	Mean	S.D.	CP	NCR	NCP	Performance	Satisfaction with				
							Work	Supervision	Peers	Pay Advancement	
CR	50.9	11.07	.25*	.38***	-.48***	.26*	.43***	.68***	.27*	.21*	.39***
CP	23.1	6.02		-.06	.07	-.12	.09	.10	.14	.07	.07
NCR	11.3	3.96			-.14	.20*	.11	.27*	.00	-.01	.14
NCP	9.9	4.62				-.21*	-.35***	-.61***	-.28*	-.17	-.24*
Performance	27.1	6.19					.39***	.28*	-.11	-.08	.13
Satisfaction with											
Work	37.9	7.34						.35**	.27*	.24*	.34**
Supervision	38.3	8.46							.38***	.31**	.34**
Peers	44.0	6.53								.25*	.21*
Pay	15.3	4.60									.30**
Advancement	14.6	6.95									

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

**Table 2**  
**Partial Correlations Between Leader Reward and Punishment Behavior and Subordinate Performance and Satisfaction**  
*(N = 72)*

<i>Correlation Between Leader Behavior and Employee Satisfaction and Performance</i>	<i>Performance Contingent Reward Behavior</i>	<i>Performance Contingent Punishment Behavior</i>	<i>Noncontingent Reward Behavior</i>	<i>Noncontingent Punishment Behavior</i>
Performance	.20*	-.16	.11	-.18
Satisfaction with:				
Work	.29*	.04	.02	-.20*
Supervisor	.51***	.06	.11	-.47***
Co-workers	.12	.13	-.07	-.22*
Pay	.13	.04	-.07	-.10
Advancement opportunities	.29*	.00	.03	-.08

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

The hypothesized moderating effects of performance on the relationship between noncontingent rewards and subordinate satisfaction (H2C) was supported for the supervision and co-worker measures. The significant negative interaction terms suggest that low performers are more satisfied than are high performers with their supervisors and peers when their leaders administer noncontingent rewards.

**Table 3**  
**Moderated Regression of Leader Behavior and Performance on Subordinate Satisfaction**

	<i>Satisfaction with Work</i>				<i>Satisfaction with Supervision</i>			
	<i>Beta</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	<i>Beta</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>
Contingent								
Rewards (1)	.35	.125**	.125	10.53**	.73	.527**	.527	71.28**
Performance (2)	.31	.217**	.092	7.73**	.10	.536**	.009	1.25
1 × 2	1.53	.263**	.046	3.84*	-.82	.549**	.013	1.77
Contingent								
Punishment (1)	.15	.022	.022	1.73	.13	.017	.017	1.18
Performance (2)	.41	.186**	.164	13.17**	.30	.107*	.090	7.41**
1 × 2	-1.05	.215**	.029	2.31	-.11	.107	.000	.00
Noncontingent								
Rewards (1)	.09	.007	.007	.55	.30	.088**	.088	7.40**
Performance (2)	.38	.148**	.141	10.42**	.23	.140**	.052	4.38*
1 × 2	.18	.149*	.008	.05	-2.49	.265**	.125	10.55**
Noncontingent								
Punishment (1)	-.36	.129**	.129	10.66**	-.65	.420**	.420	48.65**
Performance (2)	.32	.229**	.100	8.24**	.15	.442	.022	2.51
1 × 2	.40	.239**	.010	.80	.61	.465	.023	2.64

\**p* < .05\*\**p* < .01



Table 3 (continued)

	<i>Satisfaction with Co-Workers</i>				<i>Satisfaction with Pay</i>			
	<i>Beta</i>	<i>R<sup>2</sup></i>	$\Delta R^2$	<i>F</i>	<i>Beta</i>	<i>R<sup>2</sup></i>	$\Delta R^2$	<i>F</i>
Contingent								
Rewards (1)	.26	.069*	.069	4.66*	.15	.022	.022	1.65
Performance (2)	-.18	.101	.031	2.10	-.17	.048	.026	1.92
1 × 2	-.49	.106	.005	.32	2.61	.181**	.132	9.88**
Contingent								
Punishment (1)	.03	.001	.001	.07	.16	.027	.027	2.45
Performance (2)	-.10	.011	.010	.79	-.10	.036	.009	3.33
1 × 2	3.13	.265**	.254	20.17**	-3.22	.305**	.269	24.81**
Noncontingent								
Rewards (1)	.07	.004	.004	.47	-.12	.013	.013	.90
Performance (2)	-.12	.018	.014	1.49	.03	.014	.001	.05
1 × 2	4.42	.413**	.395	42.38**	-1.11	.039	.025	1.66
Noncontingent								
Punishment (1)	-.32	.101**	.101	7.37**	-.22	.047*	.047	3.25
Performance (2)	-.17	.131**	.030	2.22	-.17	.075	.028	1.90
1 × 2	.41	.141*	.010	.74	-.05	.075	.000	.01
	<i>Satisfaction with Advancement Opportunities</i>							
	<i>Beta</i>	<i>R<sup>2</sup></i>	$\Delta R^2$	<i>F</i>				
Contingent								
Rewards (1)	.31	.099**	.099	6.41*				
Performance (2)	.06	.102*	.003	.21				
1 × 2	-.47	.106	.004	.28				
Contingent								
Punishment (1)	.11	.013	.013	.97				
Performance (2)	.15	.036	.023	2.60				
1 × 2	-2.09	.150*	.114	8.16**				
Noncontingent								
Rewards (1)	.08	.006	.006	.37				
Performance (2)	.13	.021	.015	1.00				
1 × 2	1.38	.060	.039	2.51				
Noncontingent								
Punishment (1)	-.25	.061*	.061	4.04*				
Performance (2)	.09	.068	.007	.48				
1 × 2	.03	.000	.000	.00				

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

No support was provided for the hypothesized moderating effects of performance on the relationship between leader noncontingent punishment behavior and subordinate satisfaction (H2D). The results suggest that low performers and high performers are equally dissatisfied with leaders who employ noncontingent punishment.

### Discussion

Consistent with earlier research conducted by Greene (1976), Hunt and Schuler (1976), Sims (1977), and Sims and Szilagyi (1975), leader CR was

found to have the most pronounced relationship with subordinate performance. CR also was substantially related to subordinates' expressions of satisfaction with their work, supervision, and advancement opportunities. The analysis of the interaction of CR and performance indicated that high performers are more satisfied than are low performers with their work and pay when leaders administer contingent rewards. This finding is particularly important for managers who are concerned about the attitudes of their best employees. For, as noted by Baird and Hamner (1979) and Greene and Podsakoff (1978), knowledge of the workers who are satisfied, and why, has a significant impact on the ability of the organization to retain high performers and subsequently to achieve organizational success.

Although no overall relationship between NCR and employee attitudes was found, there was a moderating effect produced by performance. High performers were less satisfied with both their supervisors and their co-workers when noncontingent rewards were administered. This expressed dissatisfaction with one's peers could be explained by way of equity theory concepts (Adams, 1965). The extent to which high performers feel that their lower performing peers are receiving additional benefits or rewards that they don't deserve no doubt affects their expressed satisfaction with them and the supervisor administering these rewards. In general, support for the hypothesized relationship between NCR and performance was found. Leaders who rewarded subordinate behavior noncontingently had moderate but insignificant associations with performance when the influence of the other leader behaviors measured in the study were partialled out.

Performance-contingent and noncontingent punishment behaviors on the part of the leader were not related to employee performance. In addition, NCP was negatively related to subordinates' expressed satisfaction, and CP had no relationship with satisfaction. The analysis of the moderating effect of performance, however, did produce some unexpected results. The level of performance did not have any moderating effect on the negative relationship between noncontingent punishment and subordinate satisfaction. Both high and low performers were equally dissatisfied when leaders used noncontingent punishment. Somewhat surprisingly, however, low performers were more satisfied than high performers with their pay and advancement when a leader administered contingent punishment. Additional research is necessary in order to determine whether the findings of this study are replicable. They do, nevertheless, raise the possibility that low performers may not be any more dissatisfied than high performers with their salaries or promotion opportunities when they receive contingent punishment.

The results of the present study provide additional information on the relationship between performance-contingent and noncontingent rewards and punishments and subordinate behaviors. They also permit a comparison of the differential effects of leader behaviors on low versus high performing subordinates. Determining the differential effects that a leader's

behavior has on low as opposed to high performers is important for an understanding of who is satisfied in organizations and why they are satisfied. The findings of this study, however, are limited by their cross-sectional nature. Because the relationships reported here are correlational, the inferences made from them depend on the strength of the existing theories and research from which they were derived. Unfortunately, because of the nature of recent findings in leadership research, such inferences are not always easily made. Research conducted by Farris and Lim (1969), Lowin and Craig (1968), and Herold (1977), for example, suggests that leader behaviors are frequently affected by subordinate characteristics and responses. But Greene (1975, 1976) and Sims and Szilagyi (1978, 1979) have shown that even in instances in which subordinates cause changes in leader behavior, leaders also cause subordinate behavior; that is, reciprocal causality exists. Thus, even though additional research of a longitudinal and experimental nature will be necessary to verify the causal relationship between leader behavior and subordinate performance and attitudes suggested in this study, there is at least tentative justification in inferring the direction of causality from supervisor to subordinate.

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