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Test of a Mediated Performance–Turnover Relationship Highlighting the Moderating Roles of Visibility and Reward Contingency

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Despite the importance of understanding the conditions under which high performing employees are more likely or less likely to voluntarily leave an organization, the nature of the relationship between job performance and voluntary turnover has proven to be elusive. A model of the performance–turnover relationship that highlights important moderators and mediators is proposed and tested. Data consisted of organizational performance and turnover records and survey responses for 130 employees of a medical services organization. Results indicate that visibility and reward contingencies moderate performance relationships with alternatives and job satisfaction, respectively, and that performance may influence turnover through multiple mechanisms.

The nature of the relationship between individual job performance and voluntary turnover remains unclear. Organizations are understandably concerned about retaining high performers, and researchers have argued that individual job performance plays an important role in the turnover process (e.g., Dalton & Todor, 1979; Mobley, 1982). However, both conceptual and empirical disagreements exist about the performance–turnover relationship.

Reviews of this literature (e.g., Bluedorn, 1982; Jackofsky, Ferris, & Breckenridge, 1986) found evidence for positive, negative, and no relationship conclusions. From a conceptual standpoint, some researchers (e.g., Dreher, 1982) have argued that performance and turnover ought to have a negative relationship, because higher performers are more likely to receive greater rewards and thus be less likely to want to leave. However, other researchers (e.g., Lance, 1988) have argued that performance and turnover might have a positive relationship, because higher performers are likely to have more alternative job opportunities and thus are more likely to be able to leave. Still others have argued that the performance–turnover relationship might be nonlinear (e.g., Jackofsky, 1984) or nonexistent (e.g., Wright & Bonett, 1993).

With this research, we tested a more comprehensive model of the performance–turnover relationship that addresses at least three shortcomings of previous research. First, the model recognizes that performance may have simultaneous and sometimes conflicting effects on both the desire and the ability to leave an organization. Second, the model explicitly includes two important moderators of these relationships. More specifically, the argument that higher performers tend to receive greater rewards depends on the assumption that rewards are tied to performance; thus, perceptions of performance–reward contingencies are included as a moderator. Similarly, the argument that higher performers will have a greater number of job opportunities depends on the assumption that prospective employers can actually see whether someone is a good performer; thus, visibility of job performance is also included as a moderator. Third, the model suggests that performance is a somewhat psychologically distal antecedent of turnover with effects that are mediated by other variables. Despite evidence in favor of process models that describe turnover as a process with mediated relationships (e.g., Mobley, 1977), researchers to date have not tested the possibility that the relationship between performance and turnover is mediated by intervening variables.

The Nature of the Performance–Turnover Relationship

The foundation of much of the research in this area is March and Simon's (1958) ease and desirability of movement framework, which argues that an organization can continue only as long as the payments or inducements offered to employees are sufficient to elicit continued contributions, including participation in the organization. This framework suggests that the most important theoretical precursors of turnover are the ease and desirability of movement, with ease of movement primarily determined by the number of alternatives perceived and desire to move primarily determined by job satisfaction (March & Simon, 1958). Desirability and ease of movement have subsequently been operationalized in the literature in terms of job satisfaction and perceived alternatives, respectively (cf. Hom & Griffeth, 1995; Jackofsky et al., 1986). Lance (1988) held that arguments emphasizing the effects of performance on satisfaction and those emphasizing the effects of performance on alternatives represent competing perspectives.

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Arguments focusing on performance effects on satisfaction and desirability of movement suggest a negative performance–turnover relationship. Because higher performers are likely to receive greater rewards from the organization, they are likely to have higher job satisfaction and less desire to leave (Dreher, 1982; Martin, Price, & Mueller, 1981; Steers & Mowday, 1981). The majority of empirical results support a small negative relationship between performance and turnover in a wide variety of samples (see Jackofsky, 1984, for a review). In addition, the meta-analytic evidence supports a moderate negative relationship between performance and turnover (Hom & Griffeth, 1995; McEvoy & Cascio, 1987; C. R. Williams & Livingstone, 1994). However, the percentage of artifactual variance accounted for in these studies was quite low, leading the authors to suggest that other intervening variables may be influencing the performance–turnover relationship.

However, note that arguments in favor of a negative relationship hold only if high performers actually receive greater rewards. The extent to which performance influences satisfaction and thus turnover would seem to depend on the extent to which higher performers actually do receive greater rewards. C. R. Williams and Livingstone (1994) found some meta-analytic evidence that the performance–turnover relationship was more negative when rewards were contingent on performance. Harrison, Viriek, and William (1996) proposed and found evidence that when rewards are maximally contingent on performance, a strong relationship exists between performance and job satisfaction, and thus high performers are less likely to want to quit. Therefore, the extent to which rewards are contingent on performance likely plays an important role in the performance–turnover relationship.

Arguments focusing on performance effects on alternatives and ease of movement suggest a quite different performance–turnover relationship. Jackofsky (1984), with her curvilinear hypothesis, proposed that performance directly influences perceptions of the chances of finding alternative employment. High performers are more likely than their lower performing coworkers to quit because their performance provides them with more alternatives, whereas low performers are also more likely than other employees to leave because they are most likely to be involuntarily pushed out of the organization. In the middle performance range, adequate performers are less likely to quit because they are neither pushed out of the organization nor offered the high number of alternatives enjoyed by high performers.

Empirical evidence of the curvilinear hypothesis is mixed. However, note that involuntary turnover is included in the hypothesis, a departure from most turnover models. Lance (1988) argued that Jackofsky's (1984) perspective would actually predict a positive relationship between job performance and voluntary turnover. High performers will have more alternatives available to them, whereas low performers will perceive fewer alternatives and thus will find it more difficult to leave, even if they want to or are informally encouraged to by the organization. Several studies have found evidence of a positive performance–turnover relationship, mostly among samples of scientists, faculty, and management employees (see Jackofsky, 1984, for a review).

However, these arguments depend on the assumption of a direct positive relationship between performance and alternative opportunities. It is not clear that in all cases high performers will necessarily have or perceive more alternative employment opportunities. For many jobs and many individuals, it may be difficult or impossible for prospective employers to see or verify performance levels. Under such circumstances, it is difficult to see what effect, if any, performance levels will have on the number of available alternatives and ease of movement.

March and Simon (1958) indicated that an important contributing factor to perceptions of ease of movement is the visibility of the individual to potential alternative employers. Although March and Simon offered no formal definition of visibility, it appears to represent the extent to which an individual can be easily and widely noticed by potential alternative employing organizations with a minimum of scanning on the organizations' part. Merton (1968) discussed the visibility or observability of role performance and suggested that it is the extent to which role performances are readily open to observation by others. Individual visibility might be a function of objective verifiability of performance, heterogeneity of personal contacts, individual uniqueness, high social status, and professional involvement (Allen & Griffeth, 1999; March & Simon, 1958; Merton, 1968). Jobs and occupations may also vary in the extent that role performance is verifiable or able to be documented or in how open performance is to observation by others. For example, professional athletes, top executives, scientists, engineers, and stellar chefs might have relatively high visibility (Griffeth & Hom, 1995). However, many or perhaps even most people in a wide variety of jobs (e.g., clerical, maintenance) might have much lower visibility.

It seems plausible that in situations of low visibility, high performers might not necessarily have any greater employment alternatives than average or even low performers. Dreher (1982) argued that research indicating a positive performance–turnover relationship has taken place largely with university professors, a group that might be considered to have relatively high visibility because of professors' ability to document their scholarly achievements (e.g., Schwab, 1991). Thus, the extent to which individuals and their performances are visible is also likely to influence the performance–turnover relationship.

A More Complete Formulation of the Performance–Turnover Relationship

Although Lance (1988) argued that perspectives focusing on satisfaction and perceived alternatives represent competing hypotheses, March and Simon (1958) clearly indicated that judgments of the desire to move can only be used in conjunction with perceived ease of movement. Thus, performance likely influences turnover through both mechanisms simultaneously, as recently suggested by Allen and Griffeth (1999). Most tests of the performance–turnover relationship have not stressed both mechanisms (see Trevor, Gerhart, & Boudreau, 1997, for a partial exception; although they included both mechanisms in their model, they argued that perceptions of the ease of leaving would only operate in the absence of reward contingencies and effects on the desirability of leaving). Incorporating performance effects on both the ease and the desirability of leaving may help explain the inconsistent results found between performance and turnover. If high performance simultaneously increases perceived alternatives while also increasing satisfaction, it is unclear what the total effects on turnover should be. However, specifying important moderators of

these relationships (i.e., visibility and reward contingencies) should aid in understanding these effects.

Figure 1 shows a proposed integrative model of the performance–turnover relationship positing that the effects of performance on turnover are mediated through both perceived alternatives and job satisfaction, while also positing that these relationships are moderated by visibility and reward contingencies, respectively. Such a framework is important for a number of reasons. As noted, both alternatives and satisfaction are incorporated. Further, the model proposes that performance is a somewhat distal determinant of turnover and that the performance–turnover relationship is mediated by alternatives and satisfaction, as well as by turnover intentions. To date, most studies have tested for a direct link between performance and turnover, while a few have investigated moderated relationships (e.g., Lance, 1988; Trevor et al., 1997). However, there have been no tests of a mediated relationship, despite the fact that most contemporary turnover theories describe voluntary turnover as a process with mediating relationships (Hom & Griffeth, 1995). The model also recognizes two important contextual variables that more completely specify the nature of this complex relationship. The extent to which rewards are contingent on performance has received some attention; however, the potentially important role of visibility has received scant attention up to this point, and highlighting this construct is an important step in advancing research and theory on this topic. The hypotheses follow directly from the preceding arguments and the turnover literature.

Hypothesis 1: Job satisfaction is negatively related to turnover intentions.

Hypothesis 2: Perceived alternatives are positively related to turnover intentions.

Hypothesis 3: Turnover intentions are positively related to turnover.

Hypothesis 4: Turnover intentions mediate the alternative–turnover and satisfaction–turnover relationships.

Hypothesis 5: Job satisfaction mediates the performance–turnover intentions relationship.

Hypothesis 6: Perceived alternatives mediate the performance–turnover intentions relationship.

Hypothesis 7: The performance–job satisfaction relationship is moderated by reward contingencies such that the relationship is positive when rewards are contingent on performance and not when rewards are not contingent on performance.

Hypothesis 8: The performance–perceived alternatives relationship is moderated by visibility such that the relationship is positive when visibility is high and not when visibility is low.

Method

Sample and Procedure

Data were collected from a medical services organization in the southeastern United States desiring to remain anonymous. Confidential paper and pencil surveys were administered on company time. Employees were asked to provide identification numbers so survey responses could be matched to organizational records (e.g., of job performance and turnover). Therefore, the confidentiality of the responses was stressed, as was the voluntary nature of the survey. Approximately two thirds of the nonunion employees completed the survey (n = 264). Of the 264 who completed the survey, 222 provided their identification numbers. Nonidentifiers did not differ significantly from identifiers on attitudinal or demographic variables in this study.

After administering the survey, we collected the organizational records of the most recent supervisory ratings of the individual performance of employees completing the survey. Performance ratings were completed approximately 2 to 3 months prior to administration of the survey and represented ratings of performance during the previous 12-month period. Approximately 1 year following survey administration, turnover data were collected from organizational records on survey participants. Complete data were available for 130 of the 222 employees providing complete survey data. Some of the employee performance data had been randomly lost in a recent computer systems change; those for whom performance data were available did not differ significantly on the study's attitudinal or demographic variables from those for whom data were not available. Other employees did not have performance ratings from the previous period, as they had only been with the organization for a few months. Also, 4 individuals who had been involuntarily terminated were not included.

For the 130 participants with complete data, the average age was 40.3 years. Most of the sample was composed of women (73%), and the majority of the participants were White (52%), although a large percentage were African American (42%). Average organizational tenure was over 8.5 years. During the period under investigation, 20% of the sample voluntarily quit. A variety of job types were represented, including line workers who administer tests and collect and process samples, administrative and clerical workers, transportation specialists, human resources personnel, supervisors, support staff, and senior managers. All operate under the same performance appraisal and merit pay system.

Measures

Job performance. Supervisors rated individual job performance in three categories: individual and team goals, organizational priorities, and

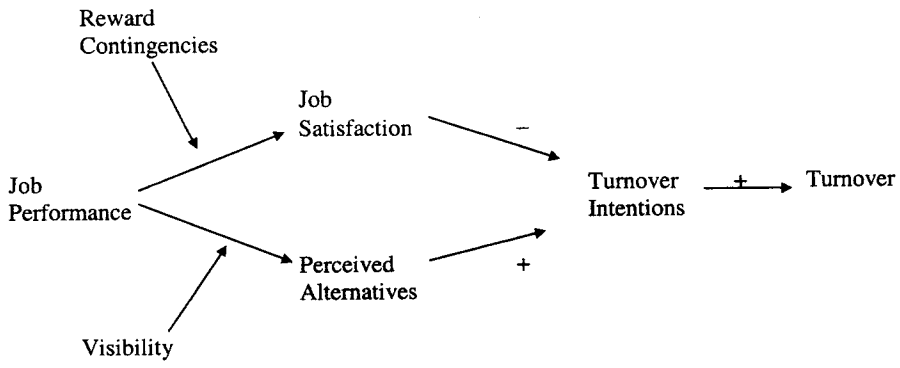

Figure 1. A proposed integrative model of the performance–turnover relationship.

skills and behaviors. For each category, each employee was given a score ranging from 1 to 5, with 5 being categorized as *role model plus* and 1 as *needing development*. Scores were averaged to get an overall performance score rated in the same manner.

Job satisfaction. March and Simon (1958) proposed that the primary determinant of desirability of movement is job satisfaction, and the construct has subsequently been operationalized as satisfaction in the literature (cf. Hom & Griffeth, 1995; Jackofsky, 1984). Although conceptualizing desirability in terms of job satisfaction raises the somewhat contentious issue of the relationship between performance and satisfaction, recent research has found that the two are related (Judge, Thoresen, Bono, & Patton, 2001) and that the relationship depends on the extent to which rewards are contingent on performance (Harrison et al., 1996; Podsakoff & Williams, 1986). Hoppock's (1935) four-item Likert-type measure of global job satisfaction was used. An example item indicates how much of the time one feels satisfied with one's job (1 = *never*, 7 = *all of the time*).

Perceived alternatives. Again, consistent with past research, ease of movement was operationalized as perceived alternatives. A six-item Likert-type scale drawn from Griffeth and Steel's (1992) measure of labor market cognitions was used to measure perceived alternative employment opportunities. An example item asks about the likelihood of being able to get a number of jobs in the community (1 = *strongly disagree*, 7 = *strongly agree*).

Reward contingency. A six-item Likert-type scale measuring the extent to which individuals perceive that their rewards are contingent on their performance was developed for this study to measure reward contingency. An example item indicates whether there is a close relationship between excellence of job performance and rewards received (1 = *disagree very much*, 6 = *agree very much*).

Visibility. We created a three-item measure of the extent to which the individual perceives that alternative employers can see his or her performance level. We have argued that visibility can vary by individuals, jobs, or occupations. To the extent that individuals differ in their perceptions of how visible their performance is, these perceptions should influence the extent to which individuals of varying performance levels perceive that they have alternative employment opportunities. An example item is "It is easy for prospective employers to tell if I am a good employee" (1 = *strongly disagree*, 7 = *strongly agree*).

Turnover intentions. A three-item Likert-type measure of intentions to quit the organization, developed and used by Griffeth and Hom (1988) and used extensively in the turnover literature, was used in this study to measure turnover intentions. An example item involves one's intentions to quit one's present job (1 = *definitely not*, 5 = *definitely yes*).

Turnover. Actual turnover behavior was acquired from personnel records approximately 1 year following survey administration. Turnover was coded as 0 for those who stayed and 1 for those who left voluntarily. Individuals who were involuntarily terminated were not included.

Analysis

We subjected the measures to reliability analysis (Cronbach's alpha) to assess internal consistency, as well as to exploratory factor analysis (principal-components analysis) to assess unidimensionality. Given acceptable measurement properties, multi-item scales were averaged to form scale scores. Descriptive statistics and correlations were calculated, and structural equation modeling with LISREL 8 (Jöreskog & Sörbom, 1994) was used to test model relationships. Given the small sample, we evaluated a manifest variables model using the variance–covariance matrix for input and calculating the measurement loadings (square root of the scale reliability) and error variances (1 − Reliability × Scale Variance) as suggested by L. J. Williams and Hazer (1986). The one-item measure of turnover was assumed to be measured without error.

The fit of the proposed theoretical model was evaluated following Bollen's (1990) recommendation to interpret multiple indexes of model fit. Thus, LISREL fit statistics such as the chi-square test and root-mean-square residual (RMR) were supplemented by the goodness-of-fit index (GFI; Bollen, 1990), the normed fit index (NFI; Bentler & Bonett, 1980), and the comparative fit index (CFI; Bentler, 1990). The NFI is not sample size dependent (Bollen, 1990), and the GFI and CFI have been shown to be relatively stable in small samples (Hu & Bentler, 1995). The overall fit of the model assesses how well the proposed model fits the data. At the same time, the significance, direction, and magnitude of the parameter estimates assess hypotheses regarding the directions of proposed relationships.

The mediating hypotheses were investigated by comparing the theoretical model against competing nested models in which performance was directly related to the turnover constructs. That is, one competing model posited a direct path from performance to turnover, while another posited a direct path from performance to turnover intentions. Additional alternative models posited direct paths between satisfaction and turnover and between alternatives and turnover to assess the hypothesis that intentions mediate relationships with turnover behavior. Chi-square difference tests were used to evaluate whether the additional paths significantly improved model fit. The moderating hypotheses were addressed using hierarchical moderator regression (cf. Cohen & Cohen, 1983) to investigate the proposed interactions. This approach was chosen because it does not require splitting the already modestly sized sample into two groups.

Results

Means, standard deviations, scale reliabilities, and correlations among study variables are shown in Table 1. Each of the scales exhibits acceptable internal consistency. Additionally, exploratory factor analyses of each scale clearly indicate only one factor for each using both a minimum eigenvalue > 1 criterion as well as an examination of scree plots.

Table 1
Correlations and Descriptive Statistics

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. Job performance	3.06	0.73	(.80)						
2. Contingent rewards	2.49	0.90	.03	(.83)					
3. Visibility	4.64	1.02	.30*	.11	(.70)				
4. Satisfaction	4.62	1.08	.04	.36*	.24*	(.83)			
5. Alternatives	4.96	1.07	.25*	.03	.45*	−.02	(.79)		
6. Turnover intentions	2.54	1.21	.03	−.22*	−.05	−.52*	.22*	(.95)	
7. Turnover	0.20	0.40	.01	−.08	−.09	−.20*	.10	.45*	—

Note. Reliabilities are given in parentheses along the diagonal.
* $p < .05$.

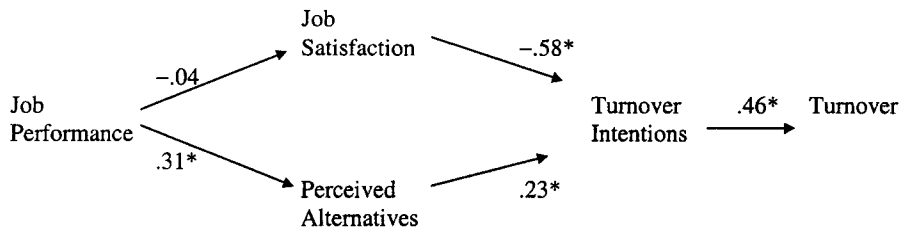

Figure 2. Completely standardized parameter estimates. The moderating effects of reward contingency and visibility were assessed using moderator regression analysis. $*p < .05$.

Examination of the correlation matrix reveals that performance is not significantly correlated with turnover intentions, turnover, or satisfaction, although it is significantly positively correlated with alternatives (.25). As expected, satisfaction (−.52) and alternatives (.22) were correlated with turnover intentions. Both satisfaction (−.20) and turnover intentions (.45) were significantly correlated with turnover, although, as expected, turnover intentions were most strongly correlated with turnover.

The results of the structural model test indicated a very good-fitting model, $\chi^2(5, N = 130) = 0.65$, $p = .99$, RMR = .013, GFI = 1.0, NFI = .99, CFI = 1.0. The completely standardized parameter estimates can be found in Figure 2. As expected, satisfaction and alternatives are significantly related to turnover intentions (−.58 and .23, respectively), and turnover intentions are significantly positively related to turnover (.46). Thus, Hypotheses 1, 2, and 3 are supported.

We also proposed (in Hypotheses 7 and 8) that moderators would affect the manner in which performance influences important turnover antecedents. Hierarchical moderator regression was used to investigate the significance of the interaction between performance and contingent rewards in predicting satisfaction, as well as the significance of the interaction between performance and visibility in predicting alternatives. In the first case, performance and contingent rewards were entered in Step 1 and the interaction term (Performance × Contingent Rewards) was entered in Step 2. In the second case, performance and visibility were entered in Step 1 and the interaction term (Performance × Visibility) was entered in Step 2. Significant interactions are evidence for moderated relationships. The results can be found in Table 2.

In both cases, the interaction effect is significant, providing support for Hypotheses 7 and 8 that the relationships between performance and satisfaction and between performance and perceived alternatives are moderated by reward contingency and visibility, respectively. To view the nature of the relationships, see the regression lines representing each group presented in Figure 3: They illustrate a divergent, fan-shaped interaction. Further, the correlation between performance and satisfaction for employees above the median on reward contingency is significantly positive (.24, $p = .052$), whereas for employees below the median, it is negative and nonsignificant (−.12). The correlation on visibility between performance and alternatives for employees above the median is also significantly positive (.30, $p = .027$), whereas for employees below the median it is nonsignificant (−.02).

Hypotheses 4–6 proposed mediated relationships among model constructs and were assessed by comparisons with a series of nested alternative models, the results of which can be found in Table 3. Hypothesis 4 suggested that turnover intentions would mediate relationships with turnover. The first alternative model posits a direct path from satisfaction to turnover and did not significantly improve model fit, χ^2 difference(1, $N = 130$) = .47, *ns*. Thus, turnover intentions mediate this relationship. The second alternative model posits a direct path from alternatives to turnover and also did not significantly improve model fit, χ^2 difference(1, $N = 130$) = .001, *ns*. However, alternatives are not significantly correlated with turnover to begin with. Although this violates the first of Baron and Kenny's (1986) widely used steps for testing for mediation, they have revised this original view, saying that Step 1 is not required (Kenny, Kashy, & Bolger, 1998). If the independent variable influences the mediator and the mediator influences the dependent variable, then Step 1 is implied. In this case, because alternatives influence turnover intentions and turnover intentions influence turnover, then by definition alternatives are indirectly influencing turnover through intentions. Still, the evidence for mediation in this case is equivocal, and Hypothesis 4 is partially supported.

Hypotheses 5 and 6 suggested that performance effects on turnover and intentions would be mediated by satisfaction and alternatives. The third and fourth alternative models posited direct

Table 2
Moderator Regression Analysis Results

Variable	β	R^2	ΔR^2
Satisfaction as dependent variable			
Step 1			
Performance	.04		
Contingent rewards	.36*	.130	
Step 2			
Performance	−.46†		
Contingent rewards	−.41		
Performance × Contingent Rewards	.94*		.029
Alternatives as dependent variable			
Step 1			
Performance	.13		
Visibility	.41*	.216	
Step 2			
Performance	−.68†		
Visibility	−.34		
Performance × Visibility	1.27*		.034

Note. $N = 128$.
† $p < .10$. $*p < .05$.

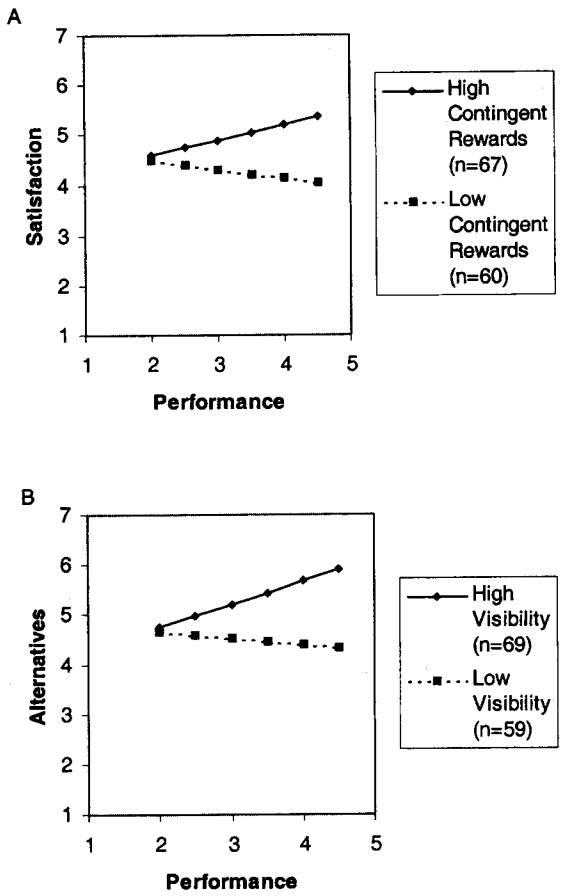

Figure 3. A: Performance and job satisfaction as moderated by reward contingency. B: Performance and perceived alternatives as moderated by visibility.

paths from performance to turnover and from performance to turnover intentions, respectively. Neither path significantly improved model fit, χ^2 difference(1, N = 130) = .0003, *ns*; χ^2 difference(1, N = 130) = .016, *ns*, respectively. Again, though, performance was not bivariately correlated with turnover or turnover intentions. Our model specifically suggests that direct relationships between performance and turnover are complex and that at least two mediating mechanisms may operate in conflict. If performance does increase satisfaction and alternatives, then the total effects on turnover could cancel out. This is consistent with Kenny et al.'s (1998) argument that independent and dependent variables need not be directly related to have a causal relationship; it is also consistent with Bollen's (1989) argument that a lack of correlation does not necessarily disprove causation. Still, the evidence for mediation and support for Hypotheses 5 and 6 is equivocal.

Discussion

This model and test contribute to theory and research on the performance–turnover relationship by integrating previous conceptual formulations with more contemporary turnover process theories, highlighting the moderating role of visibility of performance, and providing the first empirical test of a mediated performance–turnover relationship. Overall, this study provided some support for the proposed model of the performance–turnover relationship, and it may help explain the complex relationship between performance and turnover. The model as a whole fit the data extremely well, and the relationships among satisfaction, alternatives, turnover intentions, and actual turnover were as expected. The moderating results indicated that visibility moderates the relationship between performance and alternatives and that reward contingencies moderate the relationship between performance and satisfaction. The mediation results were less clear because of a lack of direct effects involving performance. Although performance was not directly related to turnover in this sample, we specifically suggested that no relationship findings in the literature could be explained by the simultaneous and sometimes conflicting effects of performance on both the ease and the desirability of leaving.

When are high performers more likely to quit or less likely to quit? According to our model and results, a negative relationship between performance and turnover should be expected when visibility is low and reward contingency is high. High performers would experience lower desirability of leaving coupled with no greater ease of leaving. In this sample, the correlation (one-tailed) between performance and turnover in the subgroup with high contingent rewards and low visibility (n = 31) was −.33 (p = .03). Further, within this subgroup, 6 individuals actually quit, and all 6 had performance ratings below the mean performance ratings for the sample as a whole, indicating that high performers in this group are unlikely to quit. Recall that this negative relationship is the most common finding in the performance–turnover literature and has been found in a wide variety of samples. These findings may be a function of two factors: At least 80% of U.S. corporations attempt to base rewards at least partially on performance

Table 3
Model Fit and Model Comparisons

Model	χ^2(5, N = 130)	χ^2 difference(1, N = 130)
Model 1: Theoretical model	.65*	
Model 2: Add performance → turnover		.0003
Model 3: Add performance → turnover intentions		.016
Model 4: Add satisfaction → turnover		.47
Model 5: Add alternatives → turnover		.001

Note. Each model is compared with the theoretical model.
* $p < .05$.

(Peck, 1984), and many individuals in many jobs would likely have relatively low visibility as defined here.

Conversely, our model and results suggest that a positive relationship between performance and turnover should be expected when visibility is high and reward contingency is low. High performers in this case would tend to have greater alternatives and lower job satisfaction, equating to greater ease and desirability of leaving. In this sample, the correlation (one-tailed) between performance and turnover in the subgroup with low contingent rewards and high visibility ($n = 23$) is .32 ($p = .07$). Further, within this subgroup, 5 individuals actually quit, and all 5 had performance ratings above the mean performance ratings for the sample as a whole, indicating that high performers in this group are likely to quit. Recall that this positive relationship has been found most often with university professors and scientists (e.g., Schwab, 1991), groups likely to have relatively high visibility.

Confidence in these conclusions is clearly limited by the modest sample sizes involved. Largely because of organizational record-keeping problems, the usable sample was effectively halved. This limits the strength of the results and our ability to perform finer subgroup analyses. However, the fact that we found at least marginally significant results supporting our hypotheses despite the reduced sample size may partially mitigate these concerns. Research with larger samples should clarify the stability and generalizability of the findings.

Another potential limitation is the ad hoc nature of the measure of a key variable, visibility. We measured this construct with self-report items tapping the extent to which an individual perceived that his or her performance was visible to other organizations. Although this taps a portion of the domain specified for visibility, it does not cover the entire domain, and it is not clear that individual-level self-reports are necessarily the most appropriate way to assess this construct. Further, the reliability of this measure was marginal. The construct validity and operationalization of visibility need to be addressed to clarify the role this construct plays in the performance–turnover relationship.

The nature of the sample itself, beyond size considerations, also limits the usefulness of the findings. This study was conducted on a relatively homogenous group of employees, in that there was not a lot of variety in the jobs or occupations represented. Further, the employees worked for a single employer at the same job site and thus labored under the same performance management and reward system. This may have restricted the amount of variance possible for the two key moderating variables of visibility and reward contingency. In fact, there was a tendency in the sample as a whole to view rewards as not being particularly contingent on performance and to view one's visibility as being relatively high. Future researchers would benefit from studying samples that clearly differ in terms of their reward structures and visibility.

Future research may also need to address additional variables that could influence the ways in which performance affects voluntary turnover. For example, Griffeth and Hom (1995) suggested that performance could influence turnover through effects on organizational commitment. Also, Allen and Griffeth (1999) recently suggested that performance-related shocks to the system, such as a negative performance review, could trigger some turnover decisions (cf. Lee & Mitchell's unfolding model, 1994).

Despite these limitations, our study does suggest several important points about the performance–turnover relationship. First, individual job performance plays a complex role in the voluntary turnover process. Second, the extent to which performance levels influence turnover depends on the extent to which rewards are contingent on performance and the extent to which individual job performance is visible to potential alternative employers. Third, the potentially conflicting mechanisms of ease and desirability of movement may help to explain the mixed results found regarding the performance–turnover relationship. This research points toward a better understanding of the processes by which performance affects turnover decisions and can lead to strategies for retaining high performers.

References

Allen, D. G., & Griffeth, R. W. (1999). Job performance and turnover: A review and integrative multi-route model. *Human Resource Management Review, 9*, 525–548.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238–246.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*, 588–606.

Bluedorn, A. C. (1982). A unified model of turnover from organizations. *Human Relations, 35*, 135–153.

Bollen, K. A. (1989). *Structural equation models with latent variables*. New York: Wiley.

Bollen, K. A. (1990). A comment on model evaluation and modification. *Multivariate Behavioral Research, 25*, 181–185.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Dalton, D. R., & Todor, W. D. (1979). Turnover turned over: An expanded and positive perspective. *Academy of Management Review, 4*, 225–235.

Dreher, G. F. (1982). The role of performance in the turnover process. *Academy of Management Journal, 25*, 137–147.

Griffeth, R. W., & Hom, P. W. (1988). A comparison of different conceptualizations of perceived alternatives in turnover research. *Journal of Organizational Behavior, 9*, 101–111.

Griffeth, R. W., & Hom, P. W. (1995). The employee turnover process. *Research in Personnel and Human Resource Management, 13*, 245–293.

Griffeth, R. W., & Steel, R. P. (1992, August). *Turnover decision models: An exploratory investigation toward the development of a multidimensional measure of labor market cognitions*. Paper presented at the annual meeting of the Academy of Management, Las Vegas, NV.

Harrison, D. A., Viriek, M., & William, S. (1996). Working without a net: Time, performance, and turnover under maximally contingent rewards. *Journal of Applied Psychology, 81*, 331–345.

Hom, P. W., & Griffeth, R. W. (1995). *Employee turnover*. Cincinnati, OH: South-Western College.

Hoppock, R. (1935). *Job satisfaction*. New York: Harper.

Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76–99). Thousand Oaks, CA: Sage.

Jackofsky, E. F. (1984). Turnover and job performance: An integrated process model. *Academy of Management Review, 9*, 74–83.

Jackofsky, E. F., Ferris, K. R., & Breckenridge, B. G. (1986). Evidence for a curvilinear relationship between job performance and turnover. *Journal of Management, 12*, 105–111.

Jöreskog, K. G., & Sörbom, D. (1994). LISREL 8 [Computer software]. Chicago: SPSS.

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin, 127,* 376–407.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, pp. 233–268). New York: McGraw-Hill.

Lance, C. E. (1988). Job performance as a moderator of the satisfaction–turnover intention relation: An empirical contrast of two perspectives. *Journal of Organizational Behavior, 9,* 271–280.

Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review, 19,* 51–89.

March, J. G., & Simon, H. A. (1958). *Organizations.* New York: Wiley.

Martin, T. N., Price, J. L., & Mueller, C. W. (1981). Job performance and turnover. *Journal of Applied Psychology, 66,* 116–119.

McEvoy, G. M., & Cascio, W. F. (1987). Do good or poor performers leave? A meta-analysis of the relationship between performance and turnover. *Academy of Management Journal, 30,* 744–762.

Merton, R. K. (1968). *Social theory and social structure.* Glencoe, NY: Free Press.

Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology, 62,* 237–240.

Mobley, W. H. (1982). Some unanswered questions in turnover and withdrawal research. *Academy of Management Review, 7,* 111–116.

Peck, C. (1984). *Pay for performance: The interaction of compensation and performance appraisal* (Tech. Rep. No. 155). New York: Conference Board.

Podsakoff, P. M., & Williams, L. J. (1986). The relationship between job performance and job satisfaction. In E. A. Locke (Ed.), *Generalizing from laboratory to field settings* (pp. 207–253). Lexington, MA: Lexington.

Schwab, D. P. (1991). Contextual variables in employee performance–turnover relationships. *Academy of Management Journal, 34,* 966–975.

Steers, R. M., & Mowday, R. T. (1981). Employee turnover and postdecision accommodation processes. In L. Cummings & B. Staw (Eds.), *Research in organizational behavior* (Vol. 3, pp. 235–281). Greenwich, CT: JAI Press.

Trevor, C. O., Gerhart, B., & Boudreau, J. W. (1997). Voluntary turnover and job performance: Curvilinearity and the moderating influences of salary growth and promotions. *Journal of Applied Psychology, 82,* 44–61.

Williams, C. R., & Livingstone, L. P. (1994). Another look at the relationship between performance and voluntary turnover. *Academy of Management Journal, 37,* 269–298.

Williams, L. J., & Hazer, J. T. (1986). Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation methods. *Journal of Applied Psychology, 71,* 219–231.

Wright, T. A., & Bonett, D. G. (1993). Role of employee coping and performance in voluntary employee withdrawal: A research refinement and elaboration. *Journal of Management, 19,* 147–161.

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