Dynamic Aspects of Voluntary Turnover: An Integrated Approach to Curvilinearity in the Performance–Turnover Relationship

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Previous research pertaining to job performance and voluntary turnover has been guided by 2 distinct theoretical perspectives. First, the push–pull model proposes that there is a quadratic or curvilinear relationship existing between these 2 variables. Second, the unfolding model of turnover posits that turnover is a dynamic process and that a downward performance change may increase the likelihood of organizational separation. Drawing on decision theory, we propose and test an integrative framework. This approach incorporates both of these earlier models. Specifically, we argue that individuals are most likely to voluntarily exit when they are below-average performers who are also experiencing a downward performance change. Furthermore, the interaction between this downward change and performance partially accounts for the curvilinear relationship proposed by the push–pull model. Findings from a longitudinal field study supported this integrative theory.

Keywords: turnover, dynamic performance, human resource management

Turnover can be extremely costly for organizations (for discussions, see Hom & Griffith, 1995; Maertz & Campion, 1998; Maertz & Griffeth, 2004). Cascio (2003) went so far as to suggest that replacement costs can run up to 2.5 times the yearly earnings of the departing employee. Work groups may also be impacted. For example, Mooney, Holahan, and Amason (2007) found that turnover can increase cognitive conflict. In view of this, it is important to recognize that turnover rates are not negligible. In the United States, annual turnover rates average about 15% (Steel, Griffeth, & Hom, 2002). To be sure, turnover rates differ by setting. For example, they have been historically lower in knowledge-based industries than in the service and manufacturing sectors that are bearing the brunt of job loss in the current economic downturn (Holtom, Mitchell, Lee, & Eberly, 2008). Turnover is generally considered dysfunctional when top performers leave and take their productivity, knowledge, and connections with them (Baron, Hannan, & Burton, 2001; Hayes & Schaefer, 1999). Likewise, an exodus of top performers may deprive a firm of its future leaders and innovators (Trevor, Gerhart, & Boudreau, 1997). With these costs in mind, organizational researchers have long been interested in predicting—and hopefully preventing—valuable employees from leaving their organizations.

However, voluntary turnover may not always be a problem for an organization. If those who choose to leave are poor performers, their exit will pose fewer problems than if those who depart are high performers. Indeed, if the right people leave, then a certain level of turnover will benefit a firm (Abelson, 1987; Campion, 1991). It is generally accepted that functional turnover occurs when the lowest performers leave the organization and make room for new and potentially higher performers (Abelson & Baysinger, 1984; Dalton, Krackhardt, & Porter, 1981).

Though the correlation between turnover and performance has not been large, previous findings underscore the possibility that turnover often increases as performance drops. In fact, a significant body of research suggests that there is a negative relationship between job performance and voluntary turnover. This has been confirmed by multiple meta-analyses. For instance, the most recent and comprehensive meta-analysis estimated the corrected correlation between performance and turnover to be \(-.17\) across 72 studies (Bycio, Hackett, & Alvares, 1990; Griffeth, Hom, & Gaertner, 2000; McEvoy & Cascio, 1987). Overall, this finding suggests that a modest level of voluntary turnover is often desirable, because low performers are more likely to exit than high performers (for consistent findings, see Griffeth et al., 2000; Sturman, Trevor, Boudreau, & Gerhart, 2003).

This brief consideration of functional and dysfunctional turnover suggests that voluntary separation from an organization may or may not be beneficial, depending on the performance of the employee in question. As we discuss below, two theoretical frameworks, the push–pull model and the unfolding model, have been valuable in helping scholars unravel the relationship between performance and turnover. There has been substantial empirical evidence consistent with each. What is missing, we argue, is an integration of these two frameworks. The main purpose of this article is to bridge the dynamic performance, push–pull, and unfolding turnover literatures and provide an empirical test of our theoretical framework. Toward this end, we review each paradigm, beginning with the push–pull model. Later we discuss a dynamic view of voluntary turnover that incorporates the findings of all three literatures. Our results suggest that integrating the previous paradigms within a decision-making framework reveals new the-
oretical insights into voluntary turnover. In addition, this integration provides important practical implications for dynamic performance and voluntary turnover. By considering both current performance and direction of performance change, managers may be better able to gauge turnover risk and promote functional turnover while avoiding dysfunctional turnover.

According to Jackofsky (1984; see also Jackofsky, Ferris, & Breckenridge, 1986), the push–pull model of turnover suggests that the association between job performance and organizational separation takes the form of a U shape, whereby the worst and best performers are most likely to leave and the moderate performers are more likely to stay. Although there may be increased turnover at both ends of the performance distribution, it seems to be somewhat stronger and more consistent at the low end than at the high end of the performance spectrum (e.g., Salamin & Hom, 2005). That is, high performers are less likely to exit than low performers. These uneven effects produce the modest overall negative association between performance and turnover alluded to previously. Work on the curvilinear push–pull model has proven consequential. However, it tends to tacitly assume that performance remains stable over time, or at least over the period studied. As this assumption does not always hold, it is worthwhile to consider a second conceptual framework.

The unfolding model of turnover is able to incorporate dynamic performance, or the regular fluctuations in work quality (Sturman, 2007). The dynamic nature of performance has implications for a number of human resource functions (Reb & Cropanzano, 2007). Of special interest here, of course, is its relationship to organizational separation as predicted by the unfolding model (T. W. Lee, Mitchell, Holtom, McDaniel, & Hill, 1999). Sturman and Trevor (2001) found that downward changes in performance were associated with higher levels of turnover. Consequently, the direction of performance changes has an impact on workplace separation that goes beyond the effect of reduced performance level. Performance ratings are not always static. They often change over time, sometimes improving but other times deteriorating. When ratings are becoming worse, workers seem to be more likely to exit the organization.

Though there is evidence for both the push–pull and unfolding models of turnover, these two frameworks have yet to be integrated. In the present study, we consider findings pertinent to each theory, in addition to relevant research on human decision making, to propose a new, integrated framework. Briefly, this dynamic approach combines two complementary ideas. Consistent with the push–pull model, our integrative framework argues that lower performers are more likely to exit a firm. However, consistent with the unfolding model, it also asserts that low performers are especially likely to leave following a downward performance change. In contrast, higher performers are less likely to be strongly affected by short-term changes in performance. We describe this dynamic framework in more detail later. First we review existing theory.

Theoretical Background

The Push Model of Turnover

Jackofsky (1984) originated the push model of turnover, positioning that a curvilinear relationship existed between job performance and turnover. Drawing on the March and Simon (1958) decision-making framework of perceived ease and desirability of movement, she argued that low performers would be pushed out by poor future prospects and reduced job security. High performers, on the other hand, were thought to be pulled out of the organization by lucrative, external employment alternatives (Gerhart, 1990; T. H. Lee, Gerhart, Weller, & Trevor, 2008). These external options seem especially influential when they come from unsolicited offers (T. H. Lee et al., 2008). Average performers are characterized by relatively lower ease and desirability of movement and are most likely to remain with the organization. Though the push–pull model is compelling, few turnover studies have tested for the curvilinearity it predicts, and those that have done so provide mixed results. Some have reported empirical support for the predicted curvilinearity (e.g., Jackofsky et al., 1986; Mossholder, Bedeian, Norris, Giles, & Feild, 1988; C. R. Williams & Livingstone, 1994), whereas others have found only a negative linear relationship (e.g., Birnbaum & Somers, 1993; Wright & Bonett, 1993). Some previous studies may not have possessed the requisite sample size to reliably test for curvilinearity (Salamin & Hom, 2005). As one might expect, studies with larger sample sizes tend to provide somewhat more support for the push–pull model.

Trevor et al. (1997) combined a large sample and a more rigorous analytical method to provide a convincing test of the push–pull model. Using average supervisor performance ratings for exempt petroleum employees, they found strong evidence of a curvilinear relationship between performance and turnover. In this sample, the lowest and highest performing employees were the most likely to leave the organization over a 5-year span. They also found that low salary growth amplified the curvilinear relationship by making top performers as likely to leave as the lowest performers. Given this finding, they extended the original push–pull model, suggesting that performance-based pay could be used to attenuate or neutralize the curvilinear relationship for high performers (see also Rynes, Gerhart, & Parks, 2005; Sturman et al., 2003).

In a similar study, Salamin and Hom (2005) found further evidence for a curvilinear relationship between performance and voluntary turnover in a large sample of primarily low-level bank employees. Over a 5-year period, low performers were again the most likely to quit. Their findings, however, suggested a J-shaped rather than a U-shaped curvilinear relationship between performance and turnover. They also found that recent bonus awards were related to both performance and turnover. Consistent with the work of Trevor et al. (1997), their analysis suggested that high performers who received low bonuses were as likely to leave as low performers.

The Unfolding Model of Turnover

Although findings regarding the push–pull model are not completely consistent, they tend to support Jackofsky’s (1984) model, provided that one has a sufficiently large sample. There is, however, at least one important limitation to this work. It is becoming apparent that employee job performance is dynamic and that temporal changes in performance are important to understanding employee attitudes and behaviors (Kammeyer-Mueller, Wanberg, Glomb, & Aihlburg, 2005; Sturman, 2007). The unfolding model of turnover provides a mechanism for how performance “shocks” can lead to voluntary turnover (T. W. Lee & Mitchell, 1994). Tests of
the unfolding model suggest that external and/or internal shocks cause employees to reassess their goals and prospects in their current job and may often trigger the turnover process (Kammeyer-Mueller et al., 2005; T. W. Lee et al., 1999). Within this framework, a change in performance rating from one year to the next presents a salient, external shock that forces employees to reconsider their standing with their current organization. Downward performance shocks seem especially likely to initiate deeper consideration of future prospects within and outside the current employer.

Consequently, according to the unfolding model, employees make separation decisions, in part, based on their most recent change in performance. In the first test of this principle, Harrison, Virick, and Williams (1998) developed their predictions from image theory (for work-relevant reviews of this model, see Beach & Mitchell, 1990; Weatherly & Beach, 1996; for more general reviews, see beach & connolly, 2005; beach & Mitchell, 1987). As image theory has implications for our present model, we provide a brief overview here. According to image theory, knowledge can be contained within three images. At the highest level of abstraction is the value image, which contains the employee’s moral and ethical principles. The individual also has a trajectory image, which is an agenda of one’s personal goals. Some of these trajectory goals are derived from the value image (i.e., from the belief in how one ought to behave), but others come from difficulties encountered in the workplace. Finally, there is a strategic image. The strategic image contains the plans that are used to achieve the trajectory goals. These plans have both specific tactics for success and forecasts of what should occur if these plans are unsuccessful.

An important feature of image theory is that the three images should be in alignment or compatible with one another. Individuals assess progress toward their goals by conducting a compatibility test (Beach & Connolly, 2005). Specifically, these judgments are made by calling up a forecast from the strategic image. This forecast is cognitively “played forward,” allowing it to function as a simulation. From this scenario a person ascertains the number of predicted violations among the three images. Violations are weighted by importance and mentally summed. If the sum of these violations exceeds the rejection threshold, the individual desists from the current course of action in question (Richmond, Bissell, & Beach, 1998). Therefore, image theory is consistent with and extends the unfolding model of turnover.

From this short review, one can see why Harrison et al. (1996) found image theory useful for predicting turnover. Poor performance signals that a plan (contained in the strategic image) may be unsuccessful in achieving a goal (contained in the trajectory image). This unfavorable forecast could also be inconsistent with a principle (contained in the value image). These violations are likely to be summed when one does a compatibility test (Richmond et al., 1998). Harrison et al.’s findings were consistent with this conjecture. Among sales representatives working under maximally contingent reward conditions, they found that decreases in monthly sales performance contributed to increased turnover risk. Because contingent reward produced clear connections between performance and success, decreases in sales led to clear judgments of failed trajectory goals. The authors made two important suggestions for future research. For one, they called for others to test and extend the dynamic performance–turnover relationship in less stringent reward contingencies. For another, they suggested that image theory may be important for understanding workplace turnover. We address both of these issues in the present article.

In a subsequent study, Sturman and Trevor (2001) demonstrated that dynamic performance in the form of performance trends had an important effect on voluntary turnover. In a large sample of sales employees, they found that downward trends in monthly performance made employees significantly more likely to quit even when controlling for current performance. Performance demonstrated the typical linear negative relationship with voluntary turnover in this study. Sturman and Trevor further observed that dynamic performance and current performance interacted such that performance trends had a greater influence on low performers than high performers. In other words, when employees with low mean performance saw their ratings drop even further, they were especially likely to exit voluntarily. On the other hand, employees at higher performance levels were more resilient in the face of a downward trend. The authors concluded that the role of performance in initiating the turnover process was shaped by both where an employee is going and where an employee is. Put differently, downward performance changes degrade job attitudes and lead employees to reconsider their long-term prospects. Therefore, they argued that treating performance as static may introduce a specification error into turnover analyses.

A Dynamic Framework for Voluntary Turnover: Linking Push–Pull Curvilinearity and Dynamic Performance

Although replication has considerable value within the organization sciences (Desrosiers et al., 2002), our present concern goes beyond this. To date, no study we are aware of has attempted to integrate the push–pull and unfolding perspectives and test for both curvilinearity and dynamic performance in the same sample. In essence, there has been a general disconnect between the dynamic performance and turnover literatures. To address this shortcoming, we developed a dynamic approach to voluntary turnover that draws on perspectives from decision-making theory and research to integrate dynamic performance with voluntary turnover (for a general review, see Gilbert, 2006).

Performance changes and directional effects. At its core, voluntary turnover involves a decision to leave one’s current employer (Holtom et al., 2008; Maertz & Campion, 2004), and this fact has long been recognized by turnover researchers (Moberg, 1982; Moberg, Griffith, Hand, & Meglino, 1979; Porter & Steers, 1973; Price, 1977). Therefore, research on human judgment and decision making should prove valuable in helping understand the decision to exit one’s organization and seek employment in another (Beach & Connolly, 2005; Moore & Flynn, 2008). As is true for other sorts of decisions, the judgment process may be subject to s sundry biases (cf. Schwarz & Strack, 1991). In particular, it has long been understood that people do not only attend to their current outcomes. Rather, they also respond to positive and negative changes in outcomes (e.g., Albert, 1977; Carver & Scheier, 1990). Evidence pertaining to this point can be found in research on satisfaction judgments. For example, Hsee and Abelson (1991) argued that one’s actual position only partially determines one’s satisfaction with an outcome. This is not especially surprising, but Hsee and Abelson went further. They also found that satisfaction
is influenced by the directional difference or displacement relation. That is, people are sensitive to changes in their outcomes. When the change is moving in a hedonically positive direction, satisfaction generally remains high. This is so even if the overall position is lower than one would like. On the other hand, when the change is negative, satisfaction is likely to be lower. This effect is stronger when the change (velocity) is rapid and weaker when the change is slow (for additional empirical evidence, see Hsee, Abelson, & Salovey, 1991). With this in mind, let us also consider that performance is prone to change over time (Kane, 1986, 1996).

One’s performance ratings can either improve or deteriorate due to changes in actual performance or changes in supervisor–subordinate relationships (Reb & Cropanzano, 2007; Reb & Gregerus, 2008). The unfolding model and image theory imply that such performance changes may further impact employee exit, such that those showing a downward change are more apt to leave (Harrison et al., 1996; Sturman & Trevor, 2001).

A series of studies reviewed by Tversky and Griffin (1991) extends this thinking. Tversky and Griffin distinguished between two possibilities: an endowment effect and a contrast effect. An endowment effect occurs when the hedonic value of an initial event exerts greater influence on one’s attitudes than the hedonic value of a subsequent event. That is, the second event is assimilated into one’s judgment of the first. It is most likely to occur when the two events are dissimilar. A contrast effect, on the other hand, occurs when the hedonic value of a subsequent event exerts a greater influence on overall attitudes than the hedonic value of the first. Contrast effects, those with the greater impact from a more recent occurrence, are most likely to transpire when a series of events are more similar. Notice that this similarity is precisely the sort that is likely to exist in a performance appraisal system, whereby a worker is repeatedly evaluated with consistent procedures. If one’s performance evaluation suddenly drops, therefore, it is likely to have an inordinately large effect on one’s response, because, according to Tversky and Griffin, this should produce a strong contrast effect.

The differential effects of negative and positive changes. Heretofore our dynamic framework looks much like the unfolding model. Both emphasize the importance of performance changes. However, there is one important difference. Based on image theory (Beach & Connolly, 2005), our approach also predicts an asymmetry between positive and negative performance changes. Specifically, low performance ratings encourage turnover more strongly than high performance ratings encourage retention. Though this implication was not predicted or tested by Harrison et al. (1996), image theory suggests that the effect of a downward change is likely to exert greater influence on a low-performing employee and less influence on a higher performing employee. As we discussed above, poor performance can produce a forecast that one’s goals will likely not be achieved. This potential failure, in turn, can increase the number of inconsistencies among the three images. If below-average performance is coupled with further declines in performance, even more violations are likely. If a rejection threshold is crossed, the individual discontinues the activity in question. That is, the individual exits his or her current job. Notice that this compatibility test involves counting the number of violations, not the number of consistent events (Richmond et al., 1998). Consequently, potential failure experiences, such as poor job performance, cause one to approach this threshold. For that reason, negative performance information will likely have stronger effects on turnover than positive performance information (Beach & Mitchell, 1987, 1990).

Behavioral decision researchers have referred to this phenomenon as negativity bias (Fredrickson, 2009), and a good deal of evidence indicates that negative changes are more heavily weighted in decision making than positive changes (Levin, Schneider, & Gaeth, 1998; Liberman, Idson, & Higgins, 2005; Tversky & Kahneman, 1981). Research by Fredrickson and Losada (2005) suggests that it takes almost three positive events to balance the effect of a single negative event. Therefore, we expect that negative performance changes will be more influential in employee decisions to leave their current position than positive changes.

Turnover research has devoted less attention to this possibility, though it is consistent with the previous research in dynamic turnover and turnover (Harrison et al., 1996; Sturman & Trevor, 2001). Sturman and Trevor (2001) also found that negative performance changes had a pronounced effect on the turnover likelihood of low performers but less effect on high performers. Consistent with image theory, this would suggest that below-average performers see their current performance and declining trend as a clear signal of their poor prospects for future success in the organization. In contrast, high performers who have a dip in performance experience fewer image violations than lower performers. Therefore, they are less likely to exceed their failure threshold image and more likely to conclude that they are still able to achieve their long-term goals in their current position. Therefore, we predict the following with respect to the interaction between current performance and performance change:

Hypothesis 1: Low performers with a negative performance change will be the most likely employees to exit the organization.

Hypothesis 2: Low performers with a positive performance change will be less likely to exit the organization than those with steady or declining performance.

Hypothesis 3: The turnover likelihood of high performers will not be affected by short-term positive or negative performance changes.

An alternative approach to integrating previous findings. The fundamental premise of the push–pull model of turnover predicts that the likelihood of turnover will be different for average versus high and low performers (Jackofsky, 1984). This curvilinear relationship has most often been investigated by testing for a quadratic relationship between performance and turnover (e.g., Salamin & Hom, 2005; Trevor et al., 1997). There has been little theoretical rationale, however, for why this phenomenon should follow a smooth quadratic relationship. Thus far, tests of performance–turnover collinearity have been grounded in March and Simon’s (1958) original decision-making-based turnover framework. Salamin and Hom (2005) acknowledged that it would be advantageous to incorporate the more recent unfolding model into investigations of turnover functionality. Thus far, the two lines of inquiry have proceeded independently. By integrating the two
perspectives, we were able to test previous findings simultaneously in the same sample.

Within the unfolding model, performance feedback and especially changes in performance feedback represent important shocks that may trigger turnover (T. W. Lee, Mitchell, Wise, & Fireman, 1996). In line with image theory (Beach & Connolly, 2005), we argue that both current performance and performance change should be important considerations for evaluating an employee’s trajectory and strategic images. Further, as we have discussed, these image evaluations are likely to be different for high, low, and average performers. Both of the previous studies that found significant quadratic relationships used average performance level versus current performance, and neither included dynamic performance considerations. It is possible, therefore, that the empirically observed quadratic curvilinearity resulted from the influence of other unobserved influences on voluntary turnover that varied with performance.

Our dynamic framework proposes that performance changes are one such factor that impacts low performers above and beyond the effect of current performance level. That is, a negative performance change could push low performers to exit but would not have as strong an effect on high performers. Figuratively speaking, negative changes might “bend” the lower end of the performance–turnover relationship upward. In so doing, a curvilinear relationship would exist between performance and turnover. However, given the asymmetrical effect of positive events, a positive change in performance might not make workers more likely to remain. This raises an interpretive question regarding previous tests of the push–pull model. The quadratic–curvilinear relationship between performance and turnover that has been observed by other scholars could have partially resulted from such unaccounted-for performance changes. If dynamic changes are included, then the quadratic effect could be rendered less predictive.

As an illustration of how this might occur, suppose that some of those with high current performance leave to seek new opportunities, while those with poor performance resign only when they experience a further downward change. Low performance will naturally impact their strategic image. This will shape their trajectory image regarding progress toward their goals. Suppose further that a study assesses performance level but fails to examine performance change. In this case, there will likely be a curvilinear relationship between performance level and turnover. However, this could be an incomplete conclusion. Low performers are not leaving only because they have low performance; they are also leaving because a negative change has colored their feelings about the organization and their future prospects.

The general problem is that prior research has examined quadratic curvilinearity without considering dynamic performance. However, as we have seen, a performance change may interact with performance, thereby showing a stronger effect depending upon whether one is a high or a low performer (Sturman & Trevor, 2001). For that reason, it could be that the interaction between current performance level and downward performance change better explains the curvilinear relationship that has been observed in other studies that treated performance as static. Unfortunately, studies that investigated dynamic performance and turnover did not test for or report quadratic relationships between performance and turnover. Therefore, we predict

Hypothesis 4: The interaction between performance and performance change will be a stronger predictor of voluntary turnover than performance curvilinearity.

Method

Sample Requirements

Much of the literature upon which our dynamic perspective of functional turnover is based was conducted in laboratory settings (cf. Schwarz & Strack, 1991; other pertinent studies were not specific to organizational separation (cf. Gilbert, 2006). Given this, we sought to test our integrative framework in an actual work environment. Selecting an appropriate site, though, was somewhat of a challenge, as we had hoped to rule out competing explanations. A clean and useful test of our predictions imposed a number of secondary requirements. First, the dynamic framework is specific to voluntary turnover. Thus, we needed to be able to distinguish voluntary from involuntary separation. Second, the events comprising a change can be more or less similar. As demonstrated earlier, contrast effects of the type we are predicting tend to be stronger when the events are of a similar nature, such as sequential performance evaluations (Tversky & Griffin, 1991). Therefore, we employed a sample for which all the performance evaluations were made under a single appraisal system. Third, we wished to have performance feedback supplied at evenly spaced intervals, to avoid confounding the direction of change with the rate of change. Recall from our earlier comments that the rate or velocity strengthens individuals’ responses to positive and negative feedback (Carver & Scheier, 1990; Harrison et al., 1996; Hsee et al., 1991; Hsee & Abelson, 1991). Velocity is an important topic, and we return to it in the Discussion section. However, we wished to examine unconfounded directional effects in the present study. Fourth, for practical reasons we desired a setting where turnover was economically costly. Support for the model in such circumstances would attest to its applied value for firms. Of course, this final issue was not a theoretical requirement; we do not see the dynamic model as limited to professional occupations. Still, focusing on costly turnover adds to the practical value of our findings.

Participants

We analyzed personnel data for individuals entering one division of a Fortune 500 engineering technology company from 2004 to 2006. In this organization, all employees were evaluated annually by their supervisors via a single, well-specified appraisal system. The records were limited to exempt positions that were filled externally through the recruitment of college students and experienced candidates. Internal hires were excluded from the analyses for this study. All of these new employees were hired into salaried positions requiring a college degree and varied from entry-level positions to senior managers. In this organization, performance evaluations were explicitly linked to long-term organizational rewards, especially salary growth. In this firm, those with high ratings received moderately higher raises and were more likely to be promoted. This organization was also unique in that there was very little external exposure for individual achievements. Competing employers had almost no means of differentiating high performers from low performers. The cost of recruiting, selecting,
and training new employees in this organization was particularly high because of the technically demanding nature of the work and tight labor market for qualified applicants.

Archival data were obtained for 1,755 employees who joined the organization and received two or more performance evaluations (651 had three evaluations) during the period of the study. Twelve percent of the sample left the organization voluntarily during the 3 years of the study. This turnover rate is typical of a knowledge-based industry during the first years of employment (Holton et al., 2008; Hom, Roberson, & Ellis, 2008). At the time of the study, this division and the parent company were prosperous and growing. About half of these records were also used in a previous study on an unrelated topic (Becker, Connolly, & Slaughter, 2010). Specifically, the earlier study explored whether timing of job offers impacted their acceptance likelihood. Performance and turnover were included there as secondary dependent variables, though their interrelationship was not assessed. The rest of the data, of course, has been employed only in the present investigation.

Measures

Performance. We obtained supervisor performance ratings of employees for the period of the study. The organization employed a performance evaluation system that considered multiple aspects of employee performance, results, and goal attainment. The supervisors evaluated employees on each dimension and assigned a global performance rating on a 4-point scale: 1 = needs improvement, 2 = meets expectations, 3 = exceeds expectations, 4 = far exceeds expectations. In this organization, the overall rating was not mathematically derived from the subdimension evaluations. These subdimension evaluations were narrative in nature and used formally only for employee development. Only the overall performance rating was recorded in the personnel records. The organization invested a great deal of time and resources in the performance evaluation process, and these overall ratings factor prominently in subsequent compensation and promotion decisions. In this sample, approximately 59% of employees rated as “meets expectations,” 31% rated “exceeds,” 7% rated “far exceeds,” and 3% rated “needs improvement.” Performance data were then grand mean centered based on the mean performance of all participants across all periods to reduce collinearity between the performance and performance-squared terms. Performance squared was calculated as the square of centered performance. Performance change was calculated as the difference between each subsequent performance rating after the first evaluation.

Turnover. Termination date was recorded for each new employee who left the company before the end date of the study. The data provided by the organization included a self-reported reason for employment resignation or termination. The organization employed in the organization during the period of the study. Choosing weeks provided a finer grained measure that was consistent with organizational rhythms and also reduced the amount of tied data in the analyses (Salamin & Hom, 2005).

Statistical Analyses

To investigate the influence of our independent variables on voluntary turnover risk, we estimated proportional hazards rate models, commonly referred to as Cox regression models (Cox, 1972). Cox regression treats job tenure as survival time and estimates the likelihood of turnover as a function of tenure. In general, the probability of voluntary turnover decreases with increasing tenure. Cox regression assumes that changes in the independent variables produce proportional changes in the baseline hazard rate. It has an advantage over logistic regression in that it differentiates between employees who quit after 1 year and those who quit after 3 years. In logistic regression, employees are considered either stayers or leavers. Cox regression models all employees as stayers until the point that they become leavers (Kleinbaum, 1996). It can also account for right-censored data for individuals who are involuntarily terminated or who do not leave during the course of the study. The proportional hazards model has become a common and accepted method of investigating turnover in organizations (e.g., Morita, Lee, & Mowday, 1993; Salamin & Hom, 2005; Sturman & Trevor, 2001; Trevor et al., 1997).

Individuals in this study had multiple observations, and their performance and performance change varied over time. Therefore, we performed Cox regression analyses with time-dependent covariates following the example of Sturman and Trevor (2001). In these analyses, each individual had a number of observations equal to the number of performance change events (one less than the total number of performance evaluations). Each observation was coded as 1 for voluntary turnover and 0 for individuals who remained or who left involuntarily. In this way an individual who quit 10 weeks after his or her third performance evaluation would have one censored observation at 104 weeks and one turnover observation at a tenure of 114 weeks. The inclusion of time-dependent variables partially invalidates the proportional hazards assumption of the basic Cox model (Kleinbaum, 1996). The Anderson–Gill counting method of Cox regression (Andersen & Gill, 1982) accounts for time-varying covariates by analyzing risk intervals in which the covariate is constant using start and stop times (Box-Steffensmeier & Jones, 2004). Because performance evaluations were received annually, the observed performance and performance change values (and presumable turnover risk) for each employee were constant between annual reviews.

We also investigated the possibility that the proportional hazards assumption was violated between hiring year cohorts. We tested the proportional hazards assumption by examining the graphs of natural logarithms of cumulative baseline hazard functions for each hire year (Andersen, 1982). Stratified analyses based on hiring year yielded hazard functions that were approximately parallel to one another, and no crossovers were present. In addition, including a time-varying hire year variable in the base model did not yield a significant coefficient. Therefore, we concluded that hiring year did not significantly affect the baseline hazard rate.

Even though the Cox regression counting method is able to account for recurrent events for each individual, it treats these repeated observations as independent (Kleinbaum, 1996). Because
multiple observations of the same individual may not be independent of one another, we used the robust sandwich estimate of variance (Lin & Wei, 1989; Therneau, 1996). The robust estimation method accounts for correlation within subjects by creating standard errors from residuals summed within individuals (Kleinbaum, 1996). In this way, robust estimation of variance allows hypothesis tests and confidence intervals that account for multiple observations within individual subjects. Therefore, Cox regression based on the counting method and robust standard errors represented the most appropriate method for analyzing our data and is consistent with previous turnover research (Dickter, Roznowski, & Harrison, 1996; Sturman & Trevor, 2001). To test our hypotheses, we estimated different models by adding unique combinations of predictors (including interaction and quadratic terms). It is important to point out that Cox regression actually models survival probability and not turnover probability. In addition, parameter estimates indicate the effect of the independent variable on the hazard rate. Therefore, a negative coefficient indicates that an increase in the independent variable reduces turnover likelihood.

**Results**

The final data set contained 2,385 person-year observations. Intercorrelations and descriptive statistics for the sample are reported in Table 1. As one might expect, there were moderate positive correlations between individual performance years, indicating that ratings exhibited a reasonable rank-order consistency over time. Still, there remained significant variation from year to year within individuals. Also, in keeping with previous research, the overall relationship between performance level and turnover was consistently negative across all analyses. To allow comparisons with previous research that explored curvilinearity and dynamic performance separately, we tested a wide range of potential models. Even though the studies investigating quadratic curvilinearity (Salamin & Hom, 2005; Trevor et al., 1997) used the basic Cox proportional hazards model, assuming time-invariant predictors, the magnitude and direction of the observed effects remained comparable.

The turnover rates were slightly lower overall than in previous studies. This was not surprising considering that this sample was entirely salaried, professional employees. The curvilinearity in this data sample was not as pronounced as the U shape found by Trevor et al. (1997) and instead more closely approximated the J shape found by Salamin and Hom (2005). However, the relationship between performance and turnover did not reverse at the highest performance levels, as it did in these two studies. This was consistent with the modest positive connection between salary growth and performance and the relative lack of turnover pull in this organization described previously. We return to the shape of this relationship in the Discussion section. Next we examine our comparisons to previous results and hypotheses tests in more detail.

**Curvilinearity and Dynamic Performance in the Relationship Between Performance and Turnover**

Model 1 of Table 2 confirms that the negative linear relationship between performance and turnover was present in our sample. This finding is consistent with that of previous studies that did not consider curvilinearity or dynamic performance (e.g., Bycio et al., 1990; Griffeth et al., 2000; McEvoy & Cascio, 1987). In Model 2, we simultaneously tested for quadratic curvilinearity and performance change. Our results replicate the primary findings for a curvilinear relationship between performance and turnover from Trevor et al. (1997) and Salamin and Hom (2005). Support for this is provided by the significant performance-squared term and improved fit of the hazard model. Thus, the curvilinear effect from the static performance models was replicated, even when we allowed each person to have multiple performance observations and turnover opportunities. However, in contrast with the findings of Sturman and Trevor (2001) adding performance change, defined as the change from the previous to the current performance evaluation, the hazard model of turnover did not yield a significant main effect (β = .08, p = .31) for performance change.

**Hypotheses 1: The Interaction Between Performance Change and Performance Level**

Next we included the interaction between performance level and performance change to the extended hazard model. Model 3 showed that there was a significant interaction between current performance and performance change (β = .63, p < .01). When the interaction was included, the main effects of quadratic performance and performance change were nonsignificant. The significant interaction between performance and performance change indicated that performance changes affected employee’s propensity to leave differently depending on their performance level.

To illustrate and interpret the interaction, we followed the procedure outlined in Sturman and Trevor (2001) and plotted the survival probabilities for high and low performance versus positive and negative performance changes at a fixed point in time. We

---

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Performance</td>
<td>0.00</td>
<td>0.71</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2. Performance squared</td>
<td>0.50</td>
<td>0.63</td>
<td>.27</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3. Performance change</td>
<td>0.19</td>
<td>0.72</td>
<td>.64</td>
<td>.17</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4. Turnover</td>
<td>0.06</td>
<td>0.24</td>
<td>-.12</td>
<td>.04</td>
<td>-.09</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5. Tenure</td>
<td>129.52</td>
<td>36.28</td>
<td>.05</td>
<td>.00</td>
<td>-.15</td>
<td>-.14</td>
<td>—</td>
</tr>
</tbody>
</table>

*Note.* N = 2,385. All correlations greater than .04 are significant at p < .01.

*Variable was mean centered to reduce collinearity with the quadratic performance term.*

*Turnover was coded 1 for employees who quit and 0 for those who remained or left by mutual consent.*

*Tenure reported in weeks.*
chose the average tenure of the sample (130 weeks) as the reference point. Figure 1 illustrates the interactive effects of current and previous performance on turnover probability. This graphical interpretation is consistent with Hypothesis 1 and the findings of Sturman and Trevor. Low performers were more affected by performance change than higher performers. Low performers who experienced a negative change were most likely to leave the organization. Therefore, Hypothesis 1 was supported. Low performers who experienced a positive change were much less likely to leave the organization. Therefore, Hypothesis 2 was also supported. In general, for low performers, the curvilinearity attributable to performance changes actually reflected functional turnover. The highest performers were largely unaffected by performance changes. Therefore, Hypothesis 3 was supported. At the high end of the performance spectrum, the curvilinearity reflected a flattening of the turnover relationship and did not produce dysfunctional turnover. The highest performers were as likely as the above-average performers to leave, but not more so.

Hypothesis 4: Accounting for the Curvilinear Relationship by Considering Dynamic Performance

Once again, a significant quadratic effect was obtained when we examined the relationship between performance and turnover (see Model 2 in Table 2). When the interaction between performance and performance change was included in the hazard model, the coefficient for the quadratic term changed sign and was non-significant. This provided a measure of support for Hypothesis 4, indicating that dynamic performance contributed to the observed curvilinear effect above and beyond that of the quadratic performance model. Once again, this appears to be attributable primarily to the impact of a downward performance change on low performers.

To further buttress this assertion, Figure 2 plots the survival probabilities versus performance from the extended proportional hazards model (Model 3) for positive and negative performance changes and for steady performance at the mean value of tenure. It is clear that most of the differences between the models occurred at the lower end of the performance scale. Consistent with Hypothesis 4, the observed curvilinearity seems to have been driven primarily by lower performers with decreasing performance changes. Therefore, Hypothesis 4 was supported. In this case, the inclusion of dynamic performance in the form of performance change and the interaction between performance change and current performance helped to account for the curvilinearity in the performance–turnover relationship. Not only were low performers more likely to turn over than others, but this was especially so when they also experienced a downward performance change.

Post Hoc Analyses: Alternative to Difference Scores

There may be some concern with our performance change measure because it was essentially a difference score between current and previous performance. Although this was the same measure that has been used in previous investigations of dynamic performance and turnover (Harrison et al., 1996; Sturman & Trevor, 2001), there have been several critiques of the use of such difference scores (e.g., Cronbach & Furby, 1970; Edwards, 1994). Fortunately, alternative analytic techniques have been proposed. To ensure that our results were not attributable to potential shortcomings of our performance change measure, we ran the anal-

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean performance</td>
<td>-.76**</td>
<td>-.74**</td>
<td>-.94**</td>
</tr>
<tr>
<td>Mean performance squared</td>
<td>.19*</td>
<td>-.31</td>
<td></td>
</tr>
<tr>
<td>Performance change</td>
<td>.08</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Mean Performance × Performance Change</td>
<td>29.08</td>
<td>45.64</td>
<td>51.55</td>
</tr>
<tr>
<td>−2 log-likelihood</td>
<td>2052.86</td>
<td>2050.32</td>
<td>2040.79</td>
</tr>
</tbody>
</table>

Note.  
N = 2,385.  
*p < .05.  **p < .01.

On the recommendations of Edwards and Cable (2009) and Edwards and Parry (1993), we replaced the performance change difference score with the previous performance rating and the interaction between previous and current performance. In the full model, current performance ($\beta = -0.76, p < .01$) and the interaction between current and previous performance ($\beta = -0.63, p < .01$) were significant. The graph of the effects of the interaction term was very similar to Figure 1 and supported the same general conclusions as the difference score analysis. It is interesting that in this model the performance-squared term was also significant ($\beta = 0.32, p < .01$) but showed a smaller effect than the interaction term.

This finding partially qualifies our earlier conclusions regarding Hypothesis 2, in that it suggests that some measure of curvilinearity in the performance–turnover relationship was not entirely attributable to dynamic performance.

**Post Hoc Analyses: Alternative Job Offers**

In the course of analyzing the data, we also encountered several findings that did not relate directly to our hypothesis but that may inform future research or have practical application. If Jackofsky's (1984) push–pull conceptualization of turnover is accurate, then we would expect more high performers who leave to have new jobs in hand at a greater rate than low performers. Similarly, the unfolding model would suggest that high performers would be more likely than low performers to react to performance shocks by initiating job search (T. W. Lee et al., 1999). Our data included self-reported reason for leaving. We found that 74% of high performers reported leaving for a new position, compared with 60% of lower performers, $t(341) = 2.28, p < .02, d = 0.30$. Among the low performers, 71% of those with steady performance left for new jobs, whereas only 50% of those with decreasing performance reported doing so, $t(96) = 2.08, p < .04, d = 0.44$. None of the lower performers with a positive performance trend left the organization. For high performers, performance change was not related to leaving for a new job. This provided an additional measure of support for the premise that some high performers were pulled out of the organization by alternative job offers.

Lower performers, on the other hand, were seemingly pushed out by diminished rewards and prospects. It also suggests that downward performance shocks may be especially effective at pushing lower performers and initiating functional turnover from the organization’s perspective.

**Discussion**

In this article, we have drawn on decision-making theories to propose a dynamic framework of voluntary turnover. We asserted that individuals would be more likely to turn over following a decline in their performance rating (cf. Hsee & Abelson, 1991; Hsee et al., 1991). However, this effect should be primarily manifested among low performers, who are in a somewhat more negative situation to begin with (see also Sturman & Trevor, 2001). Our findings were consistent with this idea. It is also worth considering what our approach did not predict. Because negative events have been found to adversely impact attitudes and value judgments more than positive events improve them (e.g., Liberman et al., 2005; Tversky & Griffin, 1991; Tversky & Kahneman, 1981), we did not expect high performance ratings to steadily increase retention. Overall, our findings were consistent with this line of reasoning (see Figure 2) because the highest performers were no more likely than better-than-average performers to remain with the organization. High performers whose rating remained steady, however, were actually slightly more likely to depart than their better-than-average counterparts. We discuss this later, when we turn to the issue of separation rates.

The support obtained for our second hypothesis could partially qualify the curvilinear effect. When performance changes were taken into account, a previously significant quadratic relationship was less predictive of voluntary turnover than was the interaction term between performance level and change. This raises an interesting possibility. What has been previously interpreted as a quadratic–curvilinear relationship may be partially attributable to the unmeasured interaction between performance change and performance. In other words, low performers were the most likely to leave, and when they also experienced a descending change, this propensity was accentuated. This is visually demonstrated in Figure 2, which shows a steep slope on the left side of the curve. Figure 2 also shows a slight U shape for employees with steady performance ratings. This suggests that consistently high performers may be most likely to explore external opportunities. When these main and interactive effects are coupled together, they give the overall turnover–performance relationship its curved appearance. Notice that the underlying mechanisms we propose—push for low performers and pull for high—are consistent with those discussed by Jackofsky (1984). Nevertheless, within the dynamic framework, this effect is interpreted somewhat differently, with an emphasis on the trend-by-level interaction and its implications for producing image violations. As this is the only study to date to test dynamic performance and the curvilinear relationship simultaneously, our conclusions must remain tentative until (or unless) there are further replications. Nevertheless, this is an exciting possibility that merits additional research.

**Theoretical Implications: Future Research on the Dynamic Model of Voluntary Turnover**

This article, along with the seminal work of Harrison et al. (1996) and Sturman and Trevor (2001), contributes to growing dynamic performance literature by examining its impact on turnover. The present findings provide encouraging support for our dynamic perspective and indicate that researchers who investigate job performance should also consider how performance is changing. Dynamic performance is a promising concept, and we expect to see additional applications in the future. Our framework, which has been heavily influenced by decision-making theory, attests to the importance of interdisciplinary research (Beach & Connolly, 2005; Moore & Flynn, 2008). Moreover, this current study is only the first step in what we believe is a promising line of inquiry. The further application of the decision-making literature to understanding turnover decisions is potentially rich. As illustrative examples, we recommend that future scholars explore (at least) the following three issues.

First, our study explored directional effects, what Hsee and Abelson (1991, p. 341) called “displacement relations,” on turnover. Poor performers were most likely to separate when they were
experiencing a downward change. However, Hsee and Abelson (see also Hsee et al., 1991) went further. They argued that velocity relations matter as well. A rapidly deteriorating situation prompts a stronger response than a slowly deteriorating situation (for a similar point, see Carver & Scheier, 1990). As this was the initial test of our framework, we selected a site where the performance evaluations were evenly spaced. Previous findings suggest that a steeply negative trend would cause more turnover than would a slow decline in performance ratings (Harrison et al., 1996). Given the asymmetry between negative and positive events (e.g., Tversky & Griffin, 1991; Tversky & Kahneman, 1981), we would not expect a steep improvement in evaluations to bring comparable benefits.

Second, our dynamic perspective drew heavily on image theory (Beach & Connolly, 2005). Building upon the work of Harrison et al. (1996), we found that changes in performance ratings impacted voluntary turnover. We further determined that these effects were strongest when low performers were pushed in a more negative direction. Future research should examine further implications of image theory for work behavior (Beach & Mitchell, 1987, 1990; Weatherly & Beach, 1996).

Third, we selected our sample, in part, to demonstrate the practical importance of turnover research. The workers considered here, who were salaried professionals, would have been especially difficult and costly to replace. The drawback of this sample, however, is that we did not have the opportunity to measure process variables. On the basis of prior research, it seems likely that a negative performance evaluation, understood here as part of a downward change, caused the employee to develop poorer job attitudes (cf. Hsee & Abelson, 1991; Hsee et al., 1991). This negative response, in turn, likely triggered a search for a new position. Future research would do well to investigate the nature of these responses, as well as to test their value as a mediator. A longitudinal study that measured employee attitudes and behaviors in response to performance evaluations would shed additional light on this issue.

Fourth, we also need to consider the similarity of the episodes that make up a change. As we observed in the introduction, there is evidence that highly similar incidents cause a “contrast effect” (Tversky & Griffin, 1991). That is, when events are more similar, a negative change or a jarring drop is likely to prompt a strong response. This is what we predicted and found. However, workers often receive benefits and consequences that are obviously distinct from one another. When this transpires, Tversky and Griffin (1991) argued for an “endowment effect.” That is, the initial incident overshadows the later one. For example, a low performance appraisal might bias a worker’s job attitudes and perceptions. This would be consistent with our framework and would be a promising topic for future investigation.

Practical Considerations

Because our study investigated an important human resource issue, and did so within the context of a work organization, the present findings raise a number of practical considerations. We now turn our attention to these.

Functional and dysfunctional turnover. From a management perspective, it is important to recognize that in this sample those most likely to exit a firm were neither the high performers nor the currently low performers who were nonetheless showing promising improvement. From the organization’s point of view, our findings represent functional turnover (Abelson, 1987; Abelson & Baysinger, 1984; Campion, 1991), as it was primarily losing less effective employees who appeared to be getting even worse. To be sure, turnover remains costly (Cascio, 2003), but retention can be costly as well if it means retaining struggling and nonproductive employees.

Another aspect of our findings provides important insight into this issue. Low-performing quitters with steady performance left for alternative job opportunities at only a slightly lower rate than their more highly performing counterparts (71% vs. 74%). In most cases, being a consistently low performer per se did not force workers onto the job market unless another employment opportunity became available. On the other hand, among low performers with a negative change (new low performers), there was roughly a 50–50 chance of departure. In other words, when faced with declining performance ratings, 50% of these less effective workers were apt to exit whether or not another job was available to them. Notice that consistently lower performers tended to remain unless the firm continued to provide negative performance feedback. Thus, a rigorous but fair performance appraisal system, one that holds employees to high standards, would seem to be the best option (cf. Folger, Konovsky, & Cropanzano, 1992; Taylor, Tracy, Renard, Harrison, & Carroll, 1995; Trevor & Nyberg, 2008). However, our findings suggest that low performers can become comfortable and refuse to leave voluntarily. Therefore, it may sometimes be necessary to pursue involuntary turnover means with these employees in order to make room for more productive employees.

High performance and turnover. If low performers are exiting because of collapsing ratings, then why do high performers leave? Our post hoc analyses of alternative jobs suggest that the process may be rather straightforward and, in fact, consistent with Jackofsky’s (1984) push–pull model. We found that roughly three quarters of all high performers left the firm only after they had already secured a new position in a different organization. Performance changes did not significantly impact turnover for high performers, which was not unexpected (Fredrickson & Losada, 2005; Tversky & Griffin, 1991; Tversky & Kahneman, 1981). Consequently, it appears that these effective workers were pulled away by the lure of better prospects elsewhere but that this departure was driven by external forces and not triggered by downward performance shocks. Further, Figure 2 suggests that consistently high performers were more likely to pursue external opportunities.

Because high-performing employees are a valuable asset, organizations should ensure that they reward them in a way that reduces the allure of external offers (Nyberg & Trevor, 2009). For example, it would be useful to increase the retention of consistently higher performers and those with improving trends (see Figure 2). For those employees who are consistently rated highly, it may be necessary to find additional means of providing positive feedback. Sturman et al. (2003) and Salamin and Hom (2005) have shown that without sound compensation an organization can lose its most effective workers. Sturman et al. further demonstrated that the departure of strong performers (i.e., dysfunctional turnover) is quite costly for a firm (see also Steel et al., 2002). Consequently, carefully designed and implemented feedback and compensation
plans have benefits for retention even if individual performance is not otherwise impacted.

Limitations

The study has a number of strengths. The sample is large, the data were collected over a 3-year period, and the results of performance appraisals had real economic implications for the employees and the organization. Despite these strengths, no study is without weaknesses, and there are certain limitations that bear mention.

External validity. Our data were collected within the context of a single organization that employed a single compensation system with moderate links between pay and performance for the duration of the study. This link between pay and performance may have reduced performance dynamism and contributed to the L of the performance–turnover relationship. As we articulated in the Method section, this firm met the relatively strict requirements for an adequate test of our theory. Though these initial findings are supportive, it remains to be seen whether these findings will generalize to other firms and to public-sector organizations. For example, some organizations could have lower performance standards. As such, employees with low performance might not perceive formal or informal pressure to leave. In this case, the interaction we observed here will likely not take place. Alternatively, some firms may not do regular formal performance appraisals (Beer, 1981; Porter, Lawler, & Hackman, 1975) or may not distinguish as well between high and low performers (Napier & Latham, 1986). Lacking such information, employees would be unable to ascertain objective performance trends. Under these conditions, the impact of dynamic performance, if it could be identified at all, would be small. It is also noteworthy that the organization studied was a high-skill, high-wage employer. It was attractive to workers as well, as judged by its industry status and low turnover rate. Given these facts, generalizability to nontechnical, low-wage employers needs to be investigated.

Though we strongly encourage future research in new settings, we emphasize that there is cause for some optimism in regard to external validity. This is because the dynamic framework draws heavily on decision-making research. Generally speaking, this work has proven quite robust and useful in helping scholars better understand business decision making (for thorough reviews, see Beach & Connolly, 2005; Russo & Shoemaker, 1989; S. W. Williams, 2002). Additionally, this literature has been helpful in other applied domains, such as marketing (e.g., Ariely, 2008), medicine (e.g., Groopman, 2007) and even therapy (e.g., Dawes, 1994). Although generalizability cannot be assumed, we believe that the prospects for the dynamic perspective are quite strong.

Separation rates. The separation rate is the proportion of job incumbents who leave an organization. The rate obtained in our sample is an issue worth considering. Turnover within our study was consistent with the industry group examined here. Nevertheless, the rate was lower than rates found in other studies that have examined curvilinearity and dynamic performance (Salamin & Hom, 2005; Sturman & Trevor, 2001; Trevor et al., 1997). This problem is mitigated somewhat in that we were able to replicate many of the effects found by previous scholars. However, the lower turnover rate may have impacted the shape of our quadratic relationship, as in the downturn we observed for higher performers with steady performance trends (see Figure 2). Notice that high performers were never more likely to leave than average performers. In other words, our quadratic trend was L shaped rather than U shaped. Perhaps a U shape would have appeared if turnover had been higher.

This pattern of findings was not unexpected. A close look at previous studies suggests that even when the quadratic function was significant, researchers have found slightly different shapes. Some formed U (e.g., Trevor et al., 1997), but others approximated the asymptotic curve found here (e.g., Salamin & Hom, 2005). Various researchers have argued for similar relationships, maintaining that higher performers are not always more likely to exit a firm (e.g., Bycio et al., 1990; C. R. Williams & Livingstone, 1994). In one interesting study, Schwab (1991) found that high-performing university professors were more likely to leave than their low-performing counterparts. Hom and Griffeth (1995) observed that this is a reasonable finding, given that professors tend to present their work in publicly visible venues. Other high-performing workers (such as those in this study) who do not typically advertise their accomplishments publicly may have fewer opportunities to leave. Circumstances that create an L-shaped rather than a U-shaped relationship should continue to receive scholarly attention. Although this is an important issue, it does not threaten our present conclusions. Still, it does suggest the potential presence of additional factors that we were unable to test here.

Validity of the performance ratings. The single-item supervisory performance rating may have affected our findings. Such measures suffer from unknown reliability, and this could, in turn, impact validity. Unreliable performance ratings could provide an alternative explanation for the L-shaped relationship found here. If performance ratings were unreliable, capable employees who received lower than deserved ratings would be especially likely to leave, whereas mediocre employees who received higher than deserved ratings would be especially likely to stay. This problem is certainly worthy of additional attention, but it does not seem to be fatal for three reasons. First, this was the actual performance measure used by the organization to make decisions. Given this, it would define job performance from the point of view of both the organization and the employee. For example, an employee with declining performance, as rated by this instrument, would know that his or her future prospects for pay raises and promotions were diminished. For this reason, it was essential that our theory be tested with the rating form that this organization employed to make real-life personnel decisions. Second, to the extent that the performance measure lacked reliability, this would have reduced our ability to find significant relationships. The fact that our predictions were confirmed, therefore, provides some evidence that this scale was worthwhile. Third, these measures are generally accepted as adequate for research in field settings (Arvey & Murphy, 1998; Judge & Ferris, 1993).

In addition, our data were limited to those available in the personnel records. Despite the fact that we were able to obtain 3 years of longitudinal data and considered performance changes, the direction of causality between performance and turnover cannot be assured. We were also unable to determine whether job attitudes mediated this relationship. It would be highly desirable, and we believe, profitable for a future research effort to incorporate multiple performance measures and job attitudes in a similar longitudinal sample to confirm our findings and delineate further.
the chain of events that links performance and performance changes to voluntary turnover.

Conclusion

Drawing on findings from decision-making research, we sought to integrate previous work on the push–pull and unfolding models of turnover. Building on this prior research, we proposed and tested a dynamic framework of voluntary turnover. This perspective proved useful in predicting which employees were more likely to turnover (low performers with a negative performance change) and which were less likely (high performers and those with a positive change). Future research should build on these findings by considering the velocity relation, as well as the similarity among the events that comprise a sequence of performance evaluations.

References


