



**E**MPLOYEE  
TURNOVER

Hom  
Griffeth

SOUTH-WESTERN SERIES IN  
**H**UMAN **R**ESOURCES **M**ANAGEMENT



SOUTH-WESTERN SERIES IN  
**HUMAN RESOURCES MANAGEMENT**

**E**MPLOYEE  
TURNOVER

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# PREFACE

Katz and Kahn (1968) long observed that the pivotal challenge for organizations was to motivate their members to produce *and* participate. Organizational researchers, who have now adopted this as a guiding principle, have written countless articles on employee performance and turnover, as well as numerous books on their theories about what motivates employees to perform and how to measure their performance. But there are fewer books on organizational participation. Our book seeks to correct this imbalance as we attempt to summarize the immense volume of empirical facts and theories about this significant employee behavior.

Specifically, we update earlier books that dealt with the vast turnover literature (Mobley, 1982; Mowday, Steers, & Porter, 1982; Price, 1977). More than a decade has elapsed since the last book, although surprising new facts and insightful theories on turnover have emerged during this time. This book attempts to review these recent developments and to bring the reader up to the present.

Apart from review, this book is different from others in the field in several respects. First, we provide a meta-analytical review of empirical facts, which is more rigorous than narrative reviews and more comprehensive than earlier meta-analysis (cf. Cotton & Tuttle, 1986). Second, we not only systematically critique various theories but also propose a theoretical integration (Chapter 6), whereas other scholarly books usually emphasize a particular viewpoint. Moreover, this book identifies methods of reducing turnover that are based on empirical research, unlike many popular books whose prescriptions derive from anecdotal evidence or speculations. We also discuss various theories that view turnover as symptomatic of an underlying maladaptation. With the exception of Price and Mueller (1986), books on turnover typically examine *only* turnover and do not consider how it relates to other adaptive responses to work dissatisfaction. Finally, we examine methodological shortcomings of current research and suggest new methods that may overcome those deficiencies. To our knowledge, no existing turnover book evaluates methodologies for investigating turnover.

We are grateful to Jerry Ferris and Ken Rowland, who initiated this project and patiently awaited the arrival of the book. We are also indebted to Tom Lee for his exhaustive review of the preliminary manuscript. The final product benefitted immeasurably from his invaluable suggestions—although we claim all mistakes for ourselves. Luis Gomez-Mejia deserves our eternal gratitude for believing in our book project and reviving it after a false start. We also express our appreciation to Paula Phillips Carson for her diligent efforts on the meta-analysis and to Margaret Harris and Veronica Wan-Huggins for painstakingly double-checking book references. We thank Joyce and Angelo Kinicki for their encouragement and faith in our ability to produce this work. Also without

Jacqui's and Justin's patience and understanding, Dad could not have finished his chapters while entombed in his office. Finally, we credit Chuck Hulin and Bill Mobley for starting us on our decade-long journey on turnover research and to Jim Price for keeping us on this path.

Tempe, Arizona  
January 1994

*For our biological and intellectual parents:  
Nguey Kun Wong and Ting Hom  
In Memory of Ann Griffeth  
Dean and Vivian Griffeth  
Charles Hulin, William Mobley, and James Price*

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# WHAT IS TURNOVER AND HOW IS IT MEASURED?

## WHY THE STUDY OF TURNOVER IS ESSENTIAL

Employee turnover—or voluntary terminations of members from organizations—is a phenomenon of immense interest to employers and organizational scholars alike. Managers have long been interested in turnover because of the personnel costs incurred when employees quit, such as those for recruiting and training new replacements (Cascio 1991). For example, Hom (1992) estimated that turnover cost twenty four mental health agencies more than \$3 million in 1991. (Bases for turnover costs are more closely examined in Chapter 2.) Not surprisingly, countless books and articles have appeared over the years to advise employers on how to curb turnover (Bellus 1984; Half 1982; Roseman 1981; Watts and White 1988).

Though pervasive corporate downsizing has dampened recent interest in the subject, turnover among key personnel or groups of strategic employees (Gomez-Mejia and Balkin 1992a) continues to attract the attention of organizations. For instance, the departure of pivotal scientists or engineers from high-tech firms can delay or impede new product development (Turbin and Rossé 1990). Given global competition, the introduction of new products may spell the future of a manufacturing firm. Similarly, 25 percent of all expatriate managers on overseas assignments quit the parent corporation within a year of returning. A multinational company thus loses, not only its \$1.2 million investment per offshore assignment, but also invaluable international experience (Gregersen and Black 1992). Though public accounting firms expect most of their staff accountants to leave eventually given only a few can become partners, they are nonetheless distressed about the high attrition rates among third-year senior accountants (Bellus 1984; Hom, Bracker, and Julian 1988). Senior accountants are well-trained veterans who generate \$47,000 more in profits than inexperienced accounting graduates do (Sheridan 1992). Thus, even organizations accustomed to (and expecting) excessive quit rates may still worry about the timing: premature turnover may waste their sizeable investment in employee training.

Apart from the departure of special personnel, service organizations—which employ 42 percent of the work force—are becoming concerned about resignations among front-line service personnel (Schlesinger and Heskett 1991). Service firms now recognize that the delivery of services and loyalty of customers may be jeopardized when employees leave (Reichheld 1993). Manpower shortages created by turnover may delay or preclude customer service (Darmon 1990; Machalaba 1993). What is more, inexperienced service providers may be inept or impersonal because they do not know the customers (Darmon 1990). Besides this, the customers, too, may abandon a firm if their attachment had been based on personal ties to former sales personnel (Schlesinger and Heskett 1991).

These trends apart, demographic changes in the work force may rekindle the interest of organizations in the subject of turnover. In particular, the labor shortage that is expected as the population ages and economy revitalizes may prompt companies to worry about keeping their employees. The Bureau of Labor Statistics projects that growth in the work force will slow dramatically from 2 percent a year for the period between 1976 and 1988 to 1.2 percent for the period between 1988 and the year 2000 (Dreyfuss 1990). Certain industries are already facing labor shortages as the economy recovers. Lehman Brothers' chief economist recently warned that the scarcity of long-haul truck drivers represents the "first major, widespread labor shortage since the 1980s" (Machalaba 1993). In the wake of trucking deregulation, many nonunion trucking companies have emerged and expanded demand for truck drivers. Yet the annual turnover of drivers runs to 100 percent or more because of inadequate wages, excessive travel time away from home, and the physical demands of loading and unloading huge amounts of freight. As a result, trucking firms are raising freight rates (so that they can afford higher salaries for the drivers), stopping expansion, or losing long-haul freight to rival railroads. To illustrate, a shortage of drivers during the fall idled 300 trucks belonging to J. B. Hunt Transport Services in Lowell, Arkansas, and reduced its third-quarter revenues by 6 percent.

Organizations may have to compete more aggressively for women and members of racial minorities—the fastest growing segments of the labor market—to fill job vacancies and meet affirmative action goals (Dreyfuss 1990). Yet minorities and women leave corporate America much faster than white males do (Cox and Blake 1991). Despairingly, a visiting professor at Sloan observed that black MBA graduates from Ivy League schools find out, in the workplace, that "they're not where they want to be . . . They're not getting the positions. They're not getting what was promised . . . a chance to really do some cutting-edge work. So there's a lot of disappointment, and a lot of turnover . . . . (Cose 1993, 78–79)." Employers face a daunting challenge in retaining their minority and female employees and may resort to unorthodox methods, such as expanded family benefits and cultural diversity programs, to secure their loyalty (see Chapter 10).

As American firms increasingly hire more foreign nationals abroad, mounting internationalization may reawaken concern about turnover. With competing loyalties to different national cultures, local employees may more readily sever their employment ties to a foreign-based (American) employer. Indeed, the allegiance and retention of local managers of the offshore subsidiaries are essential if U. S. multinational enterprises are to be effective in executing their global business strategies, which demand that the subsidiaries cooperate and that they sacrifice their own goals to achieve the corporation's goals (Palich, Hom, and Griffeth, in press). Moreover, domestic practices that bond American employees to the firm may prove ineffective overseas (Palich, Hom and Griffeth, in press). Despite conventional wisdom about compensation (Gomez-Mejia and Balkin 1992a), Hom, Gomez-Mejia, and Grabke (1993) discovered that various compensation schemes offered by

American owners of manufacturing plants situated along the border between Mexico and the United States failed to curb the 100 percent rates of turnover among Mexican workers.

Notwithstanding waning managerial concern, employee turnover continues to be a lively and enduring subject for academic inquiry, attracting over one thousand studies during this century (Steers and Mowday 1981). Because of its volitional control and ready availability (personnel records), turnover has become a popular criterion to validate (and extend) general theories of motivation, such as expectancy theory (Hom 1980), equity theory (Dittrich and Carrell 1979), and the theory of reasoned action (Hom and Hulin 1981; Prestholdt, Lane, and Mathews 1987). What is more, in theories of organizational behavior, turnover is often regarded as one among many outcomes of their motivational processes. For example, these models submit that job characteristics (Griffeth 1985; Hackman and Oldham 1980), organizational demography (Pfeffer 1983; Tsui Egan, and O'Reilly 1992), leader-member exchange (Graen and Ginsburgh 1977), role motivation of managerial effectiveness (Butler, Lardent, and Miner 1983), and person-culture fit (Chatman 1991) may influence employees to leave organizations.

More than this, turnover is a significant motivated behavior in its own right, inspiring theoretical formulations seeking to explain its occurrence. Since March and Simon's (1958) pioneering work, a plethora of complex models have emerged, including Porter and Steers' (1973) met expectation theory, Mobley's (1977) intermediate linkages model, Price and Mueller's (1981) structural theory, Rusbult and Farrell's (1983) investment model, Sheridan's (1985) cusp catastrophe model, and Lee and Mitchell's (1994) unfolding model. In modern times, empirical work on turnover has primarily investigated the validity of these rich conceptualizations about turnover.

Much personnel research has sought to identify predictors that can accurately forecast employment stability (Cascio 1976; Kinicki, Lockwood, Hom, and Griffeth 1990). A large body of applied research has also sought to develop selection procedures that assist companies to reduce turnover. Turnover, in addition to concrete measures of absenteeism and productivity, is one of the few *objective* criteria available to personnel researchers for evaluating the effectiveness of organizational programs and practices. Obviously, turnover rates are the most relevant data for applied research evaluating turnover reduction programs, such as realistic job previews or socialization programs (Kramer 1974; Wanous 1980).

In summary, employee turnover is a critical organizational phenomenon that has evoked considerable managerial and scholarly attention for many decades. Though currently interested in the shrinkage rather than the retention of their work force, organizations are still concerned about turnover among select subpopulations and may devote more attention to the matter in the coming years. Academic interest in turnover continues to flourish, as organizational scholars view turnover as a striking expression of employee malaise or organizational malfunction. The present book more fully describes the theoretical and practical significance of turnover. To

quote Porter and Steers (1973), turnover is “a relatively clear-cut act of behavior that has potentially critical consequences for both the person and the organization” (p. 151).

## THE PLAN OF THIS BOOK

In the remaining portions of Chapter 1, we define turnover and consider controversies surrounding its measurement. In Chapter 2 we examine the positive and negative consequences of turnover among organizations and individuals. In Chapter 3 we present the results of a comprehensive meta-analysis, summarizing the vast empirical literature on the causes and correlates of turnover. In Chapter 4 we review major theoretical formulations about the cause of turnover, and in Chapter 5 explore new concepts to explain turnover. In Chapter 6 we propose a heuristic model that integrates propositions from prevailing models and empirical findings. In Chapter 7 we discuss research and theory about the relationship of turnover to other employee behaviors. In Chapter 8 we describe methodological problems and advances in empirical investigations of turnover. Chapters 9 and 10 consist of a survey of means to reduce turnover. In Chapter 11 we discuss avenues for future research.

## DEFINITION AND MEASUREMENT OF TURNOVER

Following Mobley (1982a), turnover is commonly defined as *voluntary* cessation of membership in an organization by an individual who receives monetary compensation for participating in that organization. This definition emphasizes voluntary behavior because prevailing turnover models primarily seek to explain what *motivates* employees to withdraw from the workplace. Moreover, this conception focuses on *separation* from an organization and *not* on accession, transfer, or other internal movements through an organization. Finally, this notion excludes individuals who work without payment, such as volunteers, students, and members of unions or fraternities who may have quite different reasons for dissolving their affiliation with organizations, though some standard causes of turnover may underlie their departure.

### Voluntariness

One of the earliest statements addressing the problem was Price's call (1977) for considering *voluntary* turnover as the appropriate criterion. Until then the conceptualization of the turnover meaning was generally neglected. Taking up Price's call, Mobley, Griffeth, Hand, and Meglino (1979) soon acknowledged criterion definition was troublesome, spawning conflicts within the field about what turnover means. For example, some researchers (for

example, Marsh and Mannari 1977) regard pregnancy as a form of voluntary exit; (Mirvis and Lawler 1977; Waters, Roach, and Waters 1976) others exclude pregnant workers. Price (1977) regarded an employee's leaving a job at a spouse's insistence as *involuntary* turnover. Hanisch and Hulin (1990) suggested that early retirement is a form of voluntary quitting.

Apart from inconsistent categorization, the measurement of reasons for leaving is subject to various errors. Most turnover research relies on personnel files to determine the reasons and, thus, whether or not the departure is voluntary (Mobley et al. 1979). Yet such so-called objective records are typically deficient because they fail to capture all the reasons and classify the leavers into a single category—as having left—when various motives may underlie the departure. Organizational records are likely to be biased, although the extent of this bias is unknown. For instance, employers may formally classify a dismissal as a voluntary departure to protect a leaver's reputation (and avoid defamation litigation) or classify a voluntary departure as a layoff to enable a leaver to qualify for unemployment compensation.

Yet former employees' own reports are not necessarily more truthful. Leavers may be reluctant to report negative reasons to avoid endangering their chances of reemployment or employment elsewhere (Price 1977). Employees may, after the fact, develop rationalizations to justify their leaving that do not reflect their original reasons for quitting (Mobley 1982; Mowday, Porter and Steers 1982). Along with such justifications, personally reported reasons are vulnerable to a bias created by social desirability. For example, Mobley, Hand, Baker, and Meglino (1979) found that the Marine Corps was more likely to ascribe recruits' attrition from basic training to their performance deficiencies, such as defective attitudes or laziness. By comparison, departing recruits themselves more often cited homesickness or lack of personal freedom for why they left the Marine Corps. Thus, exiting employees may give more socially desirable, more "volitional" reasons for quitting than do their employers.

To improve the measurement of voluntary turnover, Mobley et al. (1979) suggested using multiple sources to identify the reasons. Because administrative and self-reported reasons for terminations often diverge, uncertainty persists as to which source is valid (Lefkowitz and Katz 1969; Mobley et al. 1979). A wise strategy might be to analyze both criteria separately for evaluating turnover interventions and the validity of theoretical models (see Mobley et al. 1979). In this way, consistent findings across administrative and self-reported classifications of voluntary turnover would suggest convergent validity for the intervention or model. Along these lines, Price and Mueller (1986) regressed involuntary quits on their turnover model. Their model variables predicted voluntary quits more accurately than they did involuntary quits, a finding that the authors interpreted as supporting their explanatory model of voluntary terminations and, indirectly, validating turnover classifications. Mobley (1982a) recommended follow-up surveys with former employees, especially if they were administered by outside consultants who can guarantee confidentiality (see Mobley et al. 1979; Price and Mueller 1986). Rather than rely on the departing employee's superiors,

organizations might entrust personnel specialists (or external consultants) with the responsibility for conducting exit interviews.

In conclusion, turnover researchers and practitioners should, at the very minimum, continue to use *voluntary* turnover when examining causes of motivated behavior. They should also take more precautions to insure that their measures, including more skillful questioning, validly represent voluntary exits. They should attempt to triangulate on the criterion of voluntary turnover using various assessment procedures. Though overlooked, more accurate turnover classifications may well boost the explanatory power of predictor variables as much as the expansion of predictor batteries is expected to. Turnover researchers might tailor models and predictor batteries to correspond to different exit categories. To illustrate, Price and Mueller (1986) removed data on those leavers who quit to follow a relocating spouse before estimating how accurately their model variables, which constitute mainly work-related antecedents, predict voluntary exits. Alternatively, one might include such cases as voluntary quits but expand the prediction equation to capture those environmental influences; one might, for example, ask employees if their spouses plan to relocate or are attending classes—and thus expect to assume a new job elsewhere upon graduation (Price and Mueller 1986).

Recent refinements of the turnover criterion suggest additional considerations for turnover researchers, considerations that are discussed in the following sections.

## FUNCTIONAL AND DYSFUNCTIONAL TURNOVER

Several researchers, such as Dalton and Todor (1979), Staw (1980), and Mobley (1982a) discussed potential *positive* organizational consequences of turnover. Departing from conventional beliefs, these writers point out that turnover can prevent stagnation and complacency, facilitate change and innovation, and displace poor performers. Turnover is not inherently negative. Although it creates personnel costs, the “organizational consequences of turnover are dependent on *who* leaves and who stays (Mobley 1982a, p. 42).”

To refine the turnover criterion, Dalton, Todor, and Krackhardt (1982) introduced a taxonomy classifying turnover as either “functional” (poor performers leave or good performers stay) or “dysfunctional” (good performers leave or poor performers stay) (see also Dalton, Krackhardt, and Porter 1981). Figure 1-1 shows this classification scheme. This distinction between functional and dysfunctional turnover assumes that replacements for leavers are at least average performers. The departure of good performers is construed as dysfunctional turnover—representing a loss to the organization—for their replacements are likely to be of lower caliber. The departure of poor performers is viewed as functional turnover—being a beneficial consequence to the organization—because they are apt to be replaced by better performers. Because they benefit firms, superior employees who remain with the organization are classified by this taxonomy with functional turnovers;



		Employer's Appraisal of Employee	
		Positive	Negative
Employee's Evaluation of Company	No Initiation of Voluntary Quit	Employee Remains	Employee is Terminated
	Initiation of Voluntary Quit	Employee Quits Dysfunctional Turnover	Employee Quits Functional Turnover

**Figure 1-1 Taxonomy of Functional Turnover (Adapted from D. Dalton, W. Todor and D. Krackhardt, "Turnover overstated: The functional taxonomy," *Academy of Management Review* 7(1982): 118.)**

marginal performers who stay (and could be replaced by better performers if they left) with dysfunctional turnovers.

More formally, Hollenbeck and Williams (1986) operationally defined turnover functionality as:  $T_{funct} = T_{freq} * Z$ , where  $T_{freq}$  represents whether or not the employee left the organization (coding stayers +1 and leavers -1) and  $Z$  is a standardized performance measure. The product is a continuous variable with positive scores signifying functional turnover, that is, either a high performer stays (positive  $Z$ -score \* 1 = positive score) or a low performer leaves (negative  $Z$ -score \* -1 = positive score). Conversely, negative scores indicate dysfunctional turnover; that is, either a high performer leaves (positive  $Z$ -score \* -1 = negative score) or a low performer stays (negative  $Z$ -score \* 1 = negative score).

Though an intriguing alternative to traditional turnover indices, the Hollenbeck-Williams index treats a high performing stayer and a poor performing leaver equally. Surely, such individuals face different work conditions and possess dissimilar personal traits. Indeed, the turnover functionality index may be less useful for testing existing turnover models. For example, it is improbable that a high performer who stays and a poor performer who leaves would feel the same job satisfaction and withdrawal cognitions, common precursors of turnover. More plausibly, the stayer would express higher satisfaction and lower withdrawal cognitions than the leaver would, even though the Hollenbeck-Williams index classifies them together. Similarly, this index treats high performing leavers and low performing stayers alike, ignoring crucial experiential and personal differences between these groups.

The turnover functionality index narrowly construes an employee's contribution to the firm, regarding only productivity or performance effectiveness. Yet employees make valuable contributions to organizations in other ways, such as display good citizenship (a desirable trait given the growth of self-managing work teams [Manz and Sims 1989; Organ 1988]),

providing creative ideas for new products or labor savings, and mentoring and training new employees. A solution might be to develop different indices of turnover functionality for different contributions. The appraisal literature has long shown, however, that different performance dimensions are distinctive and that employees do some but not all tasks well (Smith 1976). Thus, a productive but unimaginative worker who stays may have a positive turnover functionality index for productivity but a negative turnover functionality index for creativity.

Though inappropriate for testing prevailing theories, a turnover functionality index may measure efficacy of contingent reward systems (Williams and Livingstone 1994). For example, does a merit-pay program effectively reward high performers while penalizing poor performers and, thereby, promote turnover functionality? That is, does the index indicate whether or not a reward system encourages high performers to stay and low performers to leave?

## AVOIDABLE AND UNAVOIDABLE TURNOVER

Abelson (1987) further differentiated between organizationally avoidable turnover and organizationally unavoidable turnover. Specifically, he cross-classified leavers according to whether or not they had control over their turnover (a traditional dimension) and whether turnover was avoidable or unavoidable (that is, whether or not the firm had control over turnover). Figure 1-2 shows this taxonomy and various exit reasons illustrating its cross-classifications. For example, organizations cannot control (that is, it is unavoidable) turnover caused by an employee's death—and nor can the employee control it—or by an employee's quitting to trail a relocating spouse, something an employee can control. Testing this classification scheme, Abelson (1987) found little attitudinal differences between the stayers and those whose departure was unavoidable. Nevertheless, both groups differed significantly from those whose departure was avoidable, a group of employees who expressed higher levels of job tension and withdrawal cognitions and lower levels of job satisfaction and commitment to the company.

Turnover researchers are well advised to identify carefully those exits that are avoidable and those that are unavoidable. As Abelson's results (1987) imply, to group both types of leavers together may understate the validity of traditional turnover theories (and the efficacy of managerial interventions to reduce turnover). After all, leavers whose departure is unavoidable resemble stayers more than they resemble the leavers whose departure is avoidable; they do *not* resign because they are unhappy with their jobs. Rather, a superior criterion for testing prevailing turnover models, which generally omit environmental influences, such as family responsibilities (see Price and Mueller 1986), is provided by a definition of turnover that includes only the avoidable departures. Practitioners who fail to subtract instances of unavoidable turnover from turnover statistics may overestimate the severity

		Employee's Control	
		Voluntary	Involuntary
Company's control	Avoidable	Better pay elsewhere Better working conditions elsewhere Problem with superiors Better firm to work for elsewhere	Dismissal Layoff Forced retirement
	Unavoidable	Move to another location (follow spouse) Mid-career change Stay home to care for spouse or children Pregnancy; did not return after maternity leave	Severe medical disability Death

**Figure 1-2 Taxonomy of Turnover Avoidability (Adapted from M. Abelson, "Examination of avoidable and unavoidable turnover," *Journal of Applied Psychology* 72(1987): 383. Copyright 1987 by the American Psychological Association. Adapted by permission.)**

of the occurrence (Abelson 1987). They may blame poor work conditions when pregnancy or spousal relocation underlies (unavoidable) turnover and implement needless interventions.

Despite its appeal, determining whether exits are avoidable or unavoidable may prove difficult because employees may falsify reports of their reasons for leaving (Dalton, Krachhardt, and Porter, 1981). They may state that they are leaving for unavoidable reasons, such as to resume their education, when in fact they dislike their jobs or the administration, examples of avoidable reasons. As Dalton et al. put it, such leavers "also may not wish to 'burn their bridges' behind them" (ibid., 720).

## ADJUSTING TURNOVER CORRELATIONS

Contemporary researchers have further suggested correcting the correlations between continuous predictor variables and turnover, routinely operationalized as a dichotomous variable (e.g., 0 = stay, 1 = quit). Statistical corrections would offset the "ceiling effect" inherent in point-biserial correlations ( $r_{pb}$ , the product moment correlation between continuous and dichotomous variables) that restricts their maximum potential size to .798 (versus 1.0 for correlations between continuous variables) (Hunter and Schmidt 1990a). In essence, simply dichotomizing a continuous variable (perhaps, turnover) attenuates its correlations with other variables.

Moreover, this maximum point-biserial correlation is only attainable when the base rate of turnover is 50 percent, that is, 50 percent of the sample represents leavers and 50 percent stayers. Although psychometricians have long known about this artifact (Peters and Van Voorhis 1940; Thorndike 1949), turnover researchers have only recently recognized that variable dichotomization and extreme base rates may underestimate turnover predictions (Hulin 1991). As a result, empirical studies may understate the predictive validity of theoretical models of turnover.

Three correction formulae have emerged. First, Kemery, Dunlap, and Griffeth (1988) based their unequal- $n$  correction formula on the  $r_{pb}$ -to- $r_b$  conversion that corrects for dichotomization. Basically, they would adjust  $r_{pb}$  for attenuation produced by inopportune ( $< .50$ ) splits in the turnover criterion. Thus,

$$r_b = r_{pb}(pq)^{1/2}/h \quad (1.1)$$

where  $r_{pb}$  is the observed point-biserial correlation between continuous and dichotomous variables,  $p$  is the proportion of cases in one dichotomous group (for example, leavers),  $q$  is the proportion of cases in the other group ( $1-p$ ; for example, stayers), and  $h$  is the ordinate of the unit normal distribution at  $p$ . (Note:  $h$  can be obtained from any standardized normal curve distribution table.) After  $r_{pb}$  is converted to  $r_b$ , this correlation is "back converted" to  $r_{pb}$  at  $p = .50$  by using the constant .7978, the upper bound of  $r_{pb}$  (Thorndike 1978). The following formula performs this conversion:

$$.7978r_{pb}(pq)^{1/2}/h. \quad (1.2)$$

Hunter, Schmidt, and Jackson (1982) advanced another  $r_{pb}$  formula that corrects the  $r_{pb}$  to its maximum at  $p = .50$ . The formula for this correction is:

$$\frac{r_{pb}}{\{[4pq(1 - r_{pb}^2) + r_{pb}^2]^{1/2}\}} \quad (1.3)$$

where  $pq$  is  $n_{quit} \times n_{stayed}/N^2$ , and  $N$  is the total sample size.

Steel, Shane, and Griffeth (1990) proposed a third formula using Thorndike's (1949) Case II range restriction correction formula. Adapted for  $r_{pb}$ s, this formula becomes

$$R_{pb} = r_{pb} \delta_y(pq)^{1/2}/(1 - r_{pb}^2 + r_{pb}^2 \delta_y^2/pq)^{1/2} \quad (1.4)$$

where  $R_{pb}$  is the corrected correlation,  $r_{pb}$  is the observed point-biserial correlation between turnover and a predictor,  $\delta_y$  is the unrestricted standard deviation of the dichotomous variable ( $\delta_y = .50$  when correcting to  $p = .5$ ). Steel, Shane, and Griffeth also proposed a normative quit rate of  $p = .21$  based on the sample-size weighted average compiled from three recent turnover reviews and recommended another correction procedure to apply

to equation 1.4. Specifically,  $R_{pb}$  from equation 1.4 can be corrected for the dichotomization of a continuous variable using equation 1.1.

### To Correct or Not to Correct

Although they are widely prescribed (Hunter and Schmidt 1990a; Kemery, Dunlap, and Griffeth 1988; Steel, Shane, and Griffeth 1990), Williams (1990) contends that, for two reasons, corrections of predictor-turnover correlations are unwarranted. First, a dichotomization correction presumes turnover to be simply dichotomized company tenure. Yet turnover represents a different theoretical construct from that of tenure—a distinction implicit in most turnover models that explain *whether* employees quit rather than how long they remain employed. Second, correcting for departures from 50 percent quit base rates may remove nonartifactual variance because study differences in quit rates may reflect valid situational differences, such as varying job markets across settings.

Though Williams's reasoning is persuasive, Steel, Shane, and Griffeth nonetheless argued that turnover researchers may wish to compare turnover base rates across studies as an aid "in estimating the amount of unrestricted criterion variance explainable by model parameters" (1990, p. 185). Bass and Ager (1991) contested Williams's claim that "because differences in turnover can be attributed to meaningful differences in turnover antecedents across studies, there is no defensible theoretical or empirical rationale for correcting turnover  $r_{pb}$ s for unequal  $n$ s" (1990, p. 736). Bass and Ager maintained that there are "very compelling reasons to correct turnover  $r_{pb}$ s for unequal  $n$ s (i.e., different turnover base rates)" (1991, p. 596). They declared that the "point-biserial correlation, like any Pearson correlation, is affected by such methodological artifacts as unreliability and restriction of score range, as well as by differences in the marginal distributions of the variables" (ibid.). They further claimed that Williams "confounded nonartifactual differences in conditions across studies with the *effect* of such differences on measurement artifacts" (ibid.). Their rebuttal alleged that Williams erroneously concluded that uneven turnover splits are *purely* authentic (and thus the correction of uneven split  $r_{pb}$ s unjustified) just because some situational differences underlie variations in turnover that occurred between studies. Indeed, Williams and Livingstone continued this claim:

In other words, differences in jobs, organizations, and the economy produce differences in turnover rates and turnover correlations across studies. Because there are real reasons for 1 percent turnover in some jobs and companies, and for 40 percent turnover in others, it does not make sense to correct all correlations to a 50 percent rate of turnover. (1994, p. 10)

All the same, Bass and Ager reasoned that even if the variations in quit rates that do occur between studies arise only from genuine situational

differences, the interpretation and comparison of predictor-turnover correlations collected under different conditions remain problematic because the size of the correlations depends partly on base quit rates. Concluding, therefore, that “some sort of correction or standardization is clearly required for comparison purposes” (1991, p. 597), they apply Carroll’s correction index (1961):

$$r_{pb}/r_{pbmax}$$

which does not require assumptions of normality of either the predictor or the underlying criterion and enables meaningful comparisons of turnover relationships across settings.

Does one statistically adjust predictor-turnover correlations or not? Although the “methodological artifacts” of turnover dichotomy and skewed turnover distributions are increasingly corrected (Hulin 1991; Jaros, Jermier, Koehler, and Sincich 1993), such corrections—using the Bass-Ager index (1991)—are considered most valuable when one is making cross-study comparisons of predictor-turnover correlations. In other instances, statistical corrections appear less defensible. These corrections presume that turnover is simply dichotomized firm tenure, an implausible assumption (Williams 1990). Indeed, if turnover is merely tenure that is arbitrarily dichotomized, researchers could simply use company tenure as dependent variable—avoiding any loss of statistical power as a result of variable dichotomization—and not worry about correcting their turnover statistics (Price and Mueller 1981). Yet turnover occurrence is likely a different (though related) action—a truly dichotomous theoretical construct—from job longevity and has different root causes (Williams 1990).

As a precaution, turnover researchers might report results with and without such artifactual corrections (Williams and Livingstone, 1994). Alternatively, new methodologies, such as survival analysis, may increasingly be used to analyze turnover data (Morita, Lee, and Mowday 1993). Consequently, this controversy may subside if turnover researchers increasingly relinquish correlational and regression analyses, the statistical assumptions or properties of which are threatened by the distributional properties of turnover. In summary, continued thought on the necessity and special conditions for turnover corrections are warranted as is more methodological research, such as Monte Carlo studies.

# THE CONSEQUENCES OF TURNOVER

In this chapter, we review the burgeoning conceptual and empirical literature on the consequences of employee turnover (Mobley 1982a; Mowday, Porter, and Steers 1982; Price 1977, 1989; Staw 1980). Pervasive presumptions of the economic costs that turnover engenders for firms—namely, the expenses of recruiting and training replacements—doubtlessly underpin the persistent scholarly inquiry into turnover. In growing numbers, turnover theorists have begun, however, to question this viewpoint (Dalton, Todor, and Krackhardt 1982; Staw 1980). These revisionists contend that the traditional preoccupation with the personnel costs of terminations overstates the adverse effects of turnover and overlooks the positive ramifications for companies and employees alike.

To comprehend the effects, we consider, in this chapter, the various consequences of turnover for companies and individuals who leave them and review the available evidence for those effects. Following Mobley's (1982a) classification scheme, the potential benefits and disadvantages for leavers and employers are summarized in Table 2-1. Whenever possible, we describe how turnover may have curvilinear effects on outcomes or have effects that vary across different conditions (Price 1989; Staw 1980).

## **NEGATIVE CONSEQUENCES FOR THE ORGANIZATION**

This section describes the various adverse repercussions for organizations engendered by employee turnover. To illustrate its financial impact, we report a recent investigation (Hom, 1992) that estimated the personnel expenses incurred by resignations. Besides this, we discuss less familiar economic costs, such as potential productivity losses and impairments to delivery of customer service. In particular, departure of employees—especially experienced or talented ones—may threaten overall firm productivity or client retention. Furthermore, personnel losses may endanger firms' future opportunities in the marketplace or the morale of their remaining work forces.

### **Economic Costs**

Undoubtedly, the financial costs of turnover have attracted the most attention from scholars and practitioners alike (Blakeslee, Suntrup, and Kernaghan 1985; Cascio 1991). Human resource accounting experts define exit expenses as having three main components: costs of separation,

**Table 2-1 Consequences of Turnover**

	<b>Consequences for Organization</b>	<b>Consequences for Leavers</b>
<b>Negative consequences</b>	Economic costs for separation, replacement, and training Productivity losses Impaired service quality Lost business opportunities Increased administrative burden Demoralization of stayers	Forfeit seniority and fringe benefits Transition stress in new job Relocation costs Terminate personal and family social network Loss of valued community services Disrupt spouse's career
<b>Positive consequences</b>	Displaces poor performers and employees with job burnout Infusion of new knowledge and technology by replacements New business ventures Labor cost savings Enhanced promotional opportunities for stayers Empowerment of stayers	Obtain better job elsewhere Avoid stressful former job Renewed commitment to work Pursue outside endeavors Relocate to a more desirable community Improve spouse's career

(W. Mobley (1982a) *Employee Turnover: Causes, Consequences, and Control*, Reading, MA: Addison-Wesley.)

replacement, and training (Boudreau and Berger 1985; Cascio 1991; Flamholtz 1985). Separation costs are those that quitting produces directly (for example, costs of exit interviews); replacement costs include expenses incurred to replace leavers (such as expenses for advertising job vacancies); training costs consist of the company's expenditures to orient and train replacements and opportunity costs caused by inefficient production.

The various elements comprising each cost category are listed in Figure 2-1. The categories are derived from Hom's study (1992) of the costs of turnover among mental health professionals. This project illustrates specifically how different cost factors are estimated. The basic data were collected from a survey of agency directors who answered a questionnaire about each turnover cost for key clinical positions (reproduced as an appendix on page 315) (see also Cascio 1991; Whiting 1989). Extending previous efforts, Hom's research showed how certain opportunity costs for turnover—namely, the productivity losses long theorized about by human resources accounting scholars—can be estimated (Boudreau and Berger 1985). Leavers may produce fewer goods or services before exiting, and new replacements may perform less efficiently while learning new job skills (Mobley 1982a). Yet turnover costing studies typically omit productivity losses because they are difficult to measure (Cascio 1991). Hom (1992) operationalized these opportunity costs as losses of client revenue. Fewer clients are served while a



#### Separation Costs

- Exit interviews: Interviewer's and interviewee's time
- Administrative costs: Remove name from records, etc.
- Unused vacation time: Disburse unused vacation time
- Lost client revenues: Service fewer clients during vacancy period
- Overtime pay: Pay employees to assume leaver's work
- Temporary employment: Hire temps to assume leaver's work
- Case consultation: Transfer leaver's clients to others

#### Replacement costs

- Advertisements: Publicize job vacancies
- Personal recruitment: College recruitment, job fairs, etc.
- Application processing: Process and review applications
- Entrance interviews: Interviewer's time
- Application selection: Interviewer's time
- Miscellaneous costs: Tests, travel, relocation reimbursements, etc.

#### Training Costs

- Formal orientation: Instructor's and trainee's time
- Formal job training: Instructor's and trainee's time
- Offsite training: Course costs and trainee's time
- On-the-job training: Trainee's time to develop proficiency and informal instruction by superior
- Client revenue loss: Fewer clients serviced by replacements

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**Figure 2-1 Costs of Turnover Among Mental Health Professionals (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University. Copyright 1992 Van Nostrand Reinhold. Reprinted by permission.)**

position is vacant (because of staff shortages) and new replacements are less productive (because they serve fewer clients as they master their jobs). Thus, the costs of “foregone client revenues” may be more amenable to quantification, especially when service personnel leave (Darmon 1990; Sheridan 1992; Whiting 1989).

Formulas derived from Cascio (1991), for computing separation, replacement, and training costs for a single incidence of turnover in the position Clinician/Counselor II are listed in Figures 2-2 through 2-4. This is a prime position in the mental health field, and incumbents typically maintain caseloads, participate in client staffing, develop treatment plans, maintain client records, and supervise clinical staff. The formulas factored in “fully loaded” compensation—namely, base pay and fringe benefits—and divided each category into its component costs.

For instance, Hom (1992) estimated the costs of orienting and training a replacement by costing out each element:

1. Formal orientation ([hours to orient new hire × orientation instructor's hourly pay] + [hours to orient new hire × new hire's hourly pay] + costs of training materials)

- S1 = Exit Interview Costs = Cost of Interviewer's Time + Cost of Leaver's Time, where  
 interviewer's time cost = interviewer's hourly wage x exit interview time, and leaver's  
 time cost = leaver's hourly wage x exit interview time:  
 $S1 = (\$8.73 \times 3 \text{ hours}) + (\$12.59 \times 3 \text{ hours}) = \$63.96.$
- S2 = Administrative Costs of Processing Turnover  
 $S2 = \$150$  for administrative and paperwork costs to remove leaver's name from  
 payroll records, continue group insurance, etc.
- S3 = Unused Vacation Time  
 $S3 = \text{Hours of unused vacation} \times \text{leaver's hourly wage}.$   
 $S3 = (20 \text{ hours} \times \$12.59) = \$251.72.$
- S4 = Lost Revenues due to Vacancy  
 $S4 = \text{Weeks job remains vacant} \times \text{billable hours per week} \times \text{hourly rate charged for}$   
 client services  
 $S4 = (6 \text{ weeks} \times 24 \text{ billable hours/week} \times \$66 \text{ charge rate}) = \$9,504.$
- S5 = Overtime Costs for Extra Help during Job Vacancy  
 $S5 = \text{No. Overtime hours per week} \times \text{week of vacancy} \times \text{overtime pay rate} \times \text{average}$   
 hourly rate for all employees.  
 $S5 = (0 \text{ overtime hours} \times 6 \text{ weeks vacancy}) \times (0 \times \$10.85) = \$0.00.$
- S6 = Hiring Temp. Agencies to Serve Clients during Job Vacancy  
 $S6 = \text{Weekly hours of temp. employee} \times \text{weeks of temp. work} \times \text{temp. employee's}$   
 hourly pay.  
 $S6 = (0 \times 0 \times 0) = \$0.00.$
- S7 = Client Assignment (Transfer Client Records, Case Consultation, Case Learning)  
 $S7 = \text{Clerical costs to transfer client records} + (\text{supervisory time for case consultation}$   
 to staff x supervisor's hourly pay) + (staff time to learn client history x staff hourly pay).  
 $S7 = (\$105 \text{ clerical cost}) + (4 \text{ supervisory hours} \times \$15.31) + (4 \text{ staff hours} \times \$12.59) =$   
 $\$216.59.$
- Total separation cost (S1 + S2 + S3 + S4 + S5 + S6 + S7) for Clinician II turnover = \$10,186.27.

**Figure 2-2 Formulas for Estimating Separation Costs (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University. Copyright 1992 Van Nostrand Reinhold. Reprinted by permission.)**

2. Formal training ([hours to train new hire x in-house trainer's hourly pay] + [training hours x new hire's hourly pay])
3. Offsite training ([hours to attend training sessions x new hire's hourly pay] + [tuition charge for training])
4. On-the-job training ([hours to train new hire x supervisor's hourly pay] + [hours to learn agency practices x new hire's hourly pay])
5. Lost revenues during probationary period ([experienced incumbent's billable hours per week - new hire's billable hours per week] x [weeks during probationary period that new hire serves fewer clients x charge rate for client service])

As shown in Figure 2-4, data from a particular agency indicates that the cost of training and orienting a new Clinician II replacement is \$14,115.07.

- R1 = Advertising Costs to Find Replacements  
R1 = \$250.
- R2 = Job Fairs and College Recruitment  
R2 = Hours in the job fairs or college recruitment x agency representative's hourly pay.  
R2 = (10 hours x \$8.37) = \$83.65.
- R3 = Processing and Reviewing Job Applications  
R3 = (Hours processing resumes x processor's hourly pay) + (hours reviewing resumes x reviewer's hourly pay).  
R3 = (6 process hours x \$7.38) + (8 review hours x \$18.32) = \$189.22.
- R4 = Interviewing Applicants  
R4 = Number of interviewees x interview time per applicant x first interviewer's hourly pay) + (Number of interviewees x interview time x second interviewer's pay) + (Number of interviewees x interview time x third interviewer's pay), and so on.  
R4 = (8 interviewees x 1 hour x \$18.12) + (8 interviewees x 1 hour x \$13.69) x (8 interviewees x 1 hour x \$13.69) + (8 interviewees x 1 hour x \$13.69) = \$473.47
- R5 = Selection of Applicant  
R5 = (Hours to select applicants x first selector's hourly pay) + (selection hours x second selector's hourly pay) + (selection hours x third selector's hourly pay).  
R5 = (8 hours x \$18.12) = \$144.96.
- R6 = Miscellaneous Replacement Costs  
R6 = Employment tests + substance-abuse tests + physical exams + reference checks + fingerprinting costs + credentialing costs + interviewee's travel expenses + relocation expenses + payroll paperwork costs + employment agency fees.  
R6 = (\$16 reference check + \$23 fingerprinting + \$125 credentialing + \$75 agency fee) = \$239.
- Total Replacement Cost (R1 + R2 + R3 + R4 + R5 + R6) for Clinician II Turnover = \$1,380.30.

**Figure 2-3 Formulas for Estimating Replacement Costs (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University. Copyright 1992 Van Nostrand Reinhold. Reprinted by permission.)**

The overall turnover cost for this job, the sum of separation, replacement, and training costs, was \$25,681.64.

Comparisons between jobs further reveal that turnover costs are not uniform across different occupations (Cascio 1991; Wanous 1980). The different median costs of turnover for various mental health positions is shown in Figure 2-5 (Hom 1992). (For additional comparisons, see Figure 2-6: turnover costs for other occupations derived from other studies [Cascio 1991; Mobley 1982a]). Such occupational variations may reflect disparate recruiting and training costs for jobs varying in labor supply and complexity (Staw 1980). Tight job markets increase selection and recruitment costs, as do less definable criteria for judging candidates for complex occupations, where quick decisions on the applicants may not be possible.

Similarly, job complexity increases training expenses because replacements for complex positions require more time to master their work (Staw 1980). In line with Staw's speculation (1980), dissimilar component

- T1 = Formal Orientation  
 $T1 = (\text{hours to orient new hire} \times \text{instructor's hourly pay}) + (\text{orientation hours} \times \text{new hire's hourly pay}) + (\text{cost of training materials}).$   
 $T1 = (2 \text{ hours} \times \$8.73) + (2 \text{ hours} \times \$12.59) + (\$250) = \$292.64.$
- T2 = Formal Training  
 $T2 = (\text{hours to train new hire} \times \text{instructor's hourly pay}) + (\text{training hours} \times \text{new hire's hourly pay}).$   
 $T2 = (160 \text{ hours} \times \$18.12) + (160 \text{ hours} \times \$12.59) = \$4,912.87.$
- T3 = Offsite Training  
 $T3 = (\text{hours to attend training} \times \text{new hire's hourly pay}) + \text{tuition charge}.$   
 $T3 = (8 \text{ hours} \times \$12.59) + (\$200) = \$300.69.$
- T4 = On-the-Job Training  
 $T4 = (\text{hours to train new hire} \times \text{supervisor's hourly pay}) + (\text{hours to learn agency practice} \times \text{new hire's hourly pay}).$   
*Note: T4 = is included only if new hire remains employed throughout probation period.*  
 $T4 = (160 \text{ hours} \times \$18.12) + (160 \text{ hours} \times \$12.59) = \$4,912.87.$
- T5 = Lost Revenues during Probationary Period  
 $T5 = (\text{experienced incumbent's billable hours per week} - \text{new hire's billable hours per week}) \times (\text{weeks during probationary period that new hire serves fewer clients} \times \text{charge rate for client service}).$   
 $T5 = (24 \text{ billable hours} - 10 \text{ billable hours}) \times (4 \text{ weeks} \times \$66 \text{ rate}) = \$3,696.$
- Total Orientation and Training Cost (T1 + T2 + T3 + T4 + T5) for Clinician II Turnover =  
 $\$14,115.07.$

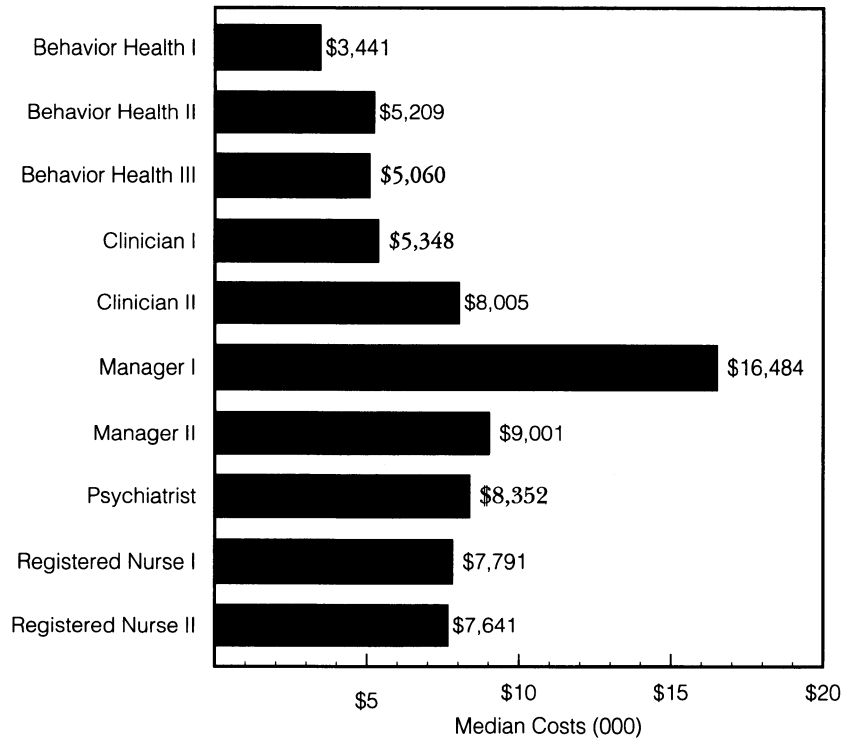
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**Figure 2-4 Formulas for Estimating Orientation and Training Costs (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University. Copyright 1992 Van Nostrand Reinhold. Reprinted by permission.)**

costs for the positions of Clinician II and Psychiatrist, derived from Hom (1992), are shown in Figure 2-7. Training expenses represent the costliest factor when clinicians leave; separation costs the largest expense for psychiatrists.

The full dimensions of turnover costs for organizations are shown in Figure 2-8, which includes data for the overall costs (for all quits from all jobs) for the twenty-three mental health agencies in Hom's study (1992). Indicative of the financial burden was the median agency cost of \$57,902 in 1991. The combined turnover cost for all agencies was \$3,071,484. Hom's estimates were conservative for they excluded costs created by the departures of part-time employees and those providing no direct mental health services, such as janitors and secretaries.

Notwithstanding the costliness of turnover, because of traditional accounting practices, few companies actually track the economics of turnover (Schlesinger and Heskett 1991). Without cost data managers may dismiss (or be unable to justify) interventions, such as improved training or pay, that might reduce exits. They readily attend to program expenses but overlook the costs of job separations that such programs might offset

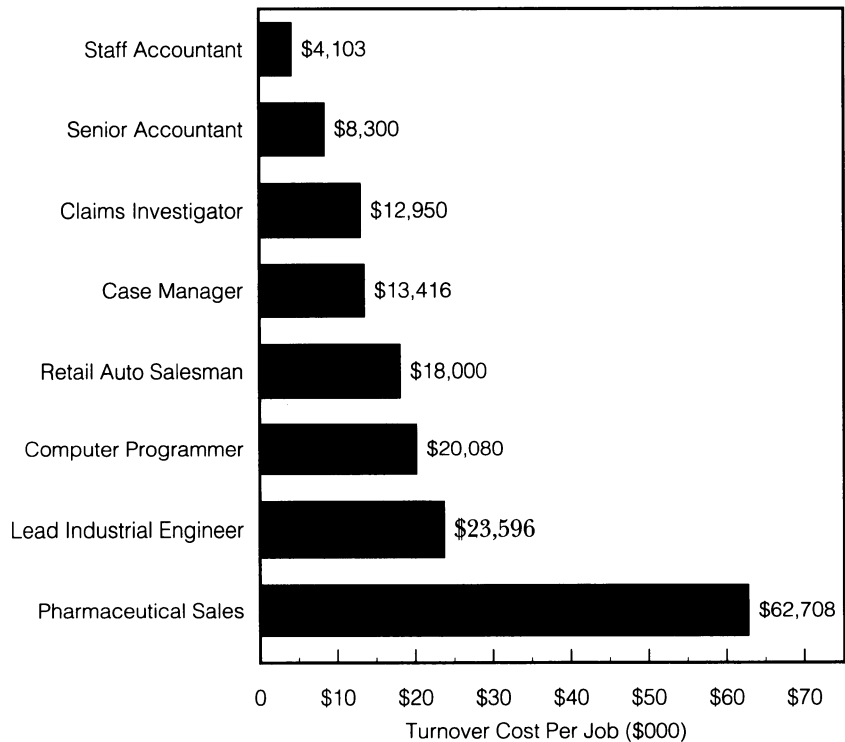


**Figure 2-5 Turnover Costs for Mental Health Positions Per One Incidence of Turnover (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University.)**

(Reichheld 1993). The perception may, however, be rational when the costs of retaining personnel exceed the savings of preventing turnover (Abelson and Baysinger 1984). That is, “it may be far less expensive to cope with turnover than to prevent it (Dalton and Todor 1979, 200).” All the same, a quantification of termination costs may help firms more precisely balance the costs and benefits of turnover-reduction interventions and therefore wisely decide if they are indeed *cost effective* (Boudreau and Berger 1985). Embodying such foresight, Merck & Company projected that an investment of 50 percent of an employee’s salary in measures to lower quits can yield a one-year payback (Schlesinger and Heskett 1991).

### Productivity Losses

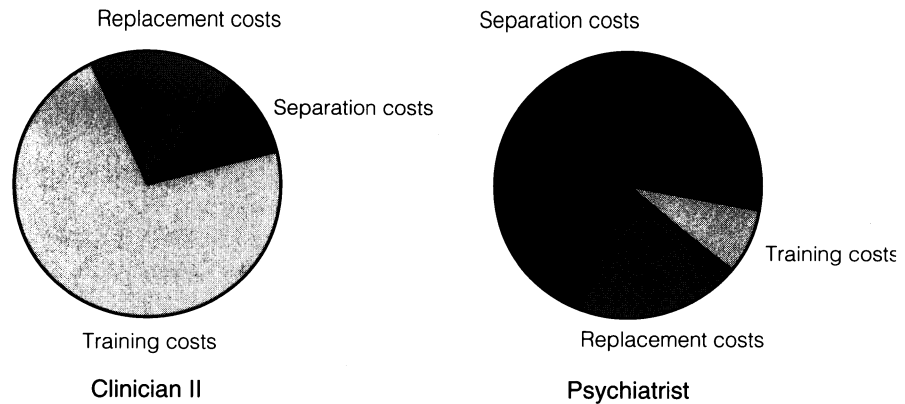
Other ramifications of turnover that are not beneficial for organizations secured less attention. Some writers on turnover contend that voluntary quits impair organization productivity, which is the ratio of company goods and services to inputs (Price 1977; 1989). Many schools of thought and



**Figure 2-6 Turnover Costs in Selected Occupations (Cascio, W. (1991). *Costing human resources: The financial impact of behavior in organizations* (3rd edition). Boston, MA: Kent Publishing; Hom, P., Bracker, J., & Julian, G. (1988, October). In pursuit of greener pastures. *New Accountant*, 4, 24–27, 49; Mobley, W. (1982). *Employee turnover: causes, consequences and control*. Reading, MA: Addison-Wesley; Wanous, J.P. (1980). *Organizational entry: Recruitment, selection and socialization of newcomers*. Reading, MA: Addison-Wesley.)**

indirect evidence (besides cost data [Price 1977]) implicate productivity losses as potential exit outcomes. Specifically, leavers often miss work or are tardy before they depart (Rossé 1988); missing employees obviously produce nothing (Rhodes and Steers 1990). The productivity of leavers may deteriorate before they depart, according to progression-of-withdrawal models (Hulin 1991; Rossé 1988).

New replacements may produce fewer goods or services than the veteran employees who left did (Price 1977), a result that is consistent with positive age and productivity relationships (Waldman and Avolio 1986). In line with this contention, Sheridan (1992) documented that public accounting firms lose \$47,000 in profits whenever a new accountant replaces a third-year veteran who leaves. Furthermore, resignations may disrupt other employees'

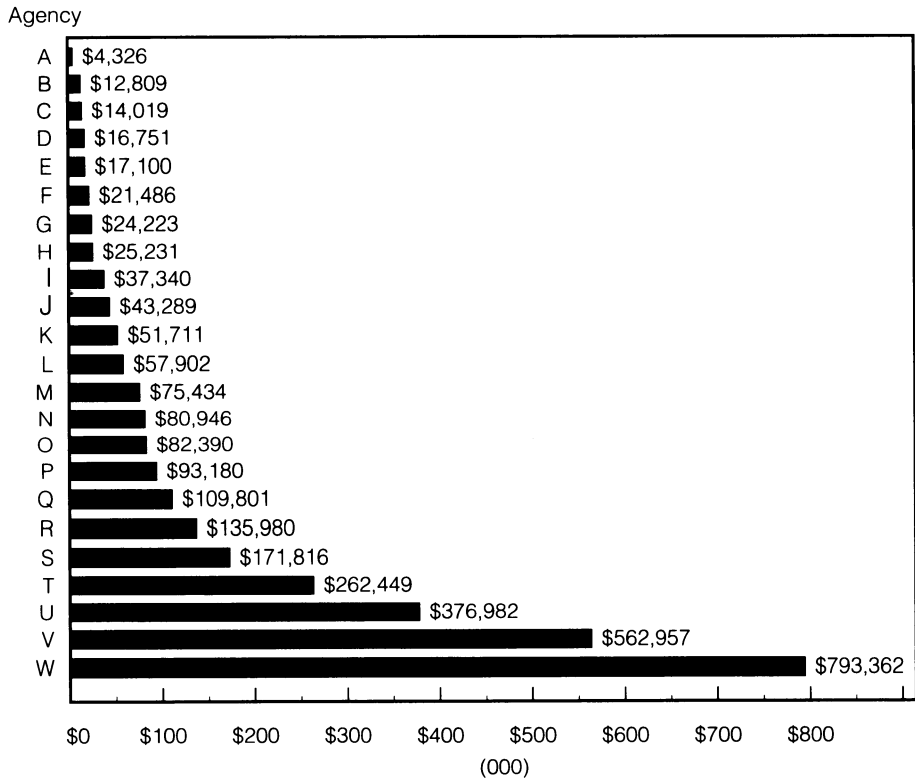


**Figure 2-7 Major Constituents of Turnover Costs (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University.)**

work if their work depends on the leavers or they must assume the leavers' duties (Mobley 1982a; Schlesinger and Heskett 1991; Staw 1980). Remaining employees must also adjust to the replacements' work style and habits and interrupt work to train them (Louis, Posner, and Powell 1983; Mowday, Porter, and Steers 1982). In summary, turnover may decrease productivity because of the leaver's declining productivity, the inexperience of the replacement, and disruptions of the workflow.

Recently, Ulrich, Halbrook, Meder, Stuchlik, and Thorpe (1991) provided direct evidence that turnover may yield productivity losses. They found that the financially successful Ryder Truck Rental districts had lower termination rates than did the less successful districts. Although it is a noteworthy finding, this preliminary assessment did not statistically control other determinants of performance in firms that might underlie the relationship between performance and quitting.

**Functional turnover.** Nevertheless, productivity reversals are neither inevitable nor likely consequences of separation. That is, human resource accounting formulas may overstate exit costs because they ignore the identity of the leavers (Dalton, Krackhardt, and Porter 1981). The exit of marginal performers, which may be termed *functional turnover*, benefits employers, who may replace them with superior performers (presuming that productivity gains offset replacement and training expenses [Darmon 1990]). Importantly, several meta-analyses concluded that poor performers are more likely to quit than are good performers, in which case productivity is more likely to improve from turnover (McEvoy and Cascio 1987; Williams and Livingstone, 1994). Thus, as Dalton, Krackhardt, and Porter (1981) documented, gross quit rates are misleading. Their inspection of who left banks revealed that high performers constituted only 58 percent of all quits, a finding that made



**Figure 2-8 Total Turnover Costs per Agency (P. Hom (1992). *Turnover Costs Among Mental Health Professionals*. Department of Management, Arizona State University.)**

the overall 32 percent quit rate seem less alarming. A computation of *net* performance gains (or losses) that result from hiring replacements who outperform leavers may correct estimates by human resource accounting formulas of the true costs of turnover (Boudreau and Berger 1985).

**Moderators.** Thus, performance differentials between leavers and replacements may influence whether or not turnover generates economic losses for organizations. Several circumstances may, however, determine the relative effectiveness of these types of employees and thus whether turnover does yield productivity losses. For one, the presence of merit-pay schemes widens the performance differential by distributing fewer incentives to marginal performers who then become dissatisfied and quit (Staw 1980; Williams and Livingstone 1994; Zenger 1992). More valid selection procedures or aggressive recruitment may enhance the quality of new replacements who may outproduce leavers. A shrinking demand for labor may allow companies to hire more qualified replacements for a particular occupation but also may inhibit marginal performers from quitting.



The organizational climate may also influence relationships between performance and quitting. For example, Sheridan (1992) found that ineffective accountants quit more than did effective accountants in public accounting firms that value task achievements. In contrast, varying quit rates between high and low performers were not apparent in firms that endorsed interpersonal relationships, a climate that encouraged both high and low performers to stay on the job longer. By extension, voluntary resignations may thus enhance productivity in firms with task-oriented cultures (assuming that the replacements are better performers) more than they might in firms with interpersonal-relationship cultures.

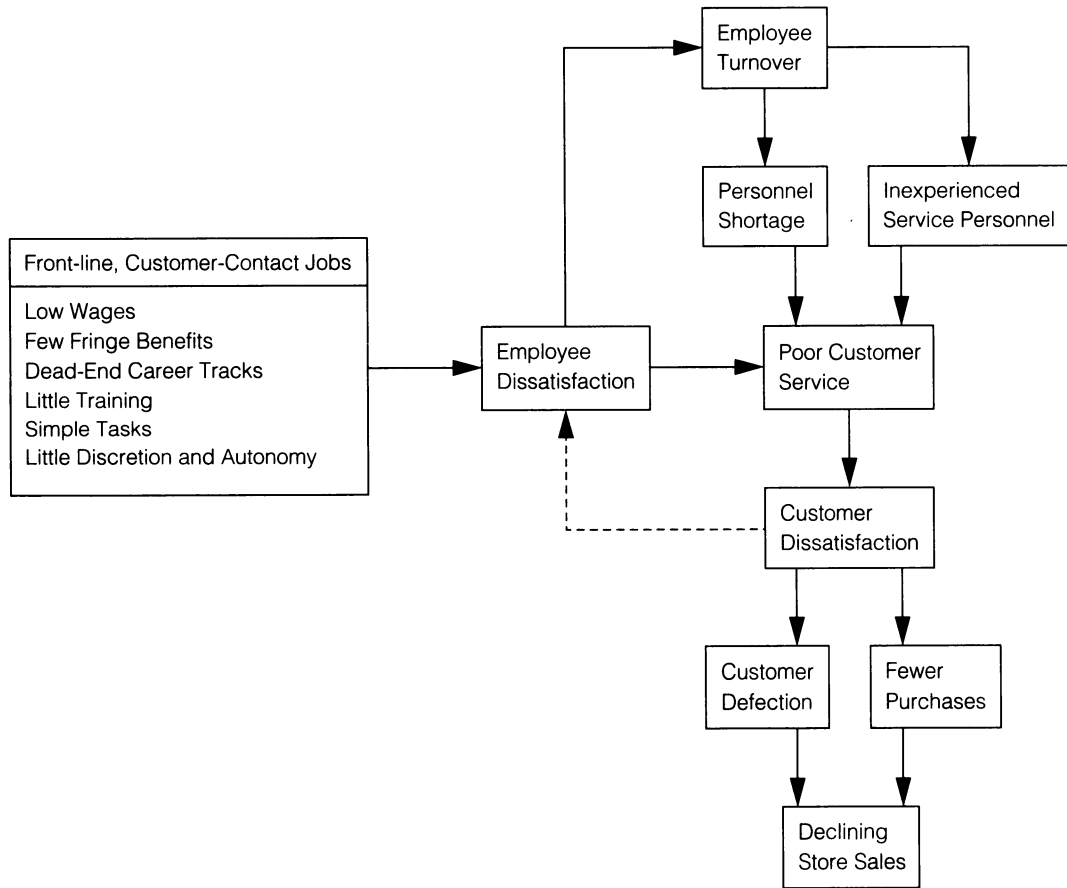
Staw (1980) proposed that the departures of employees in pivotal rather than peripheral positions interrupt work flows most, given the greater dependency of other employees' work on crucial jobs. Organizations, such as public accounting firms (Sheridan 1992), may anticipate regular exit occurrences and institute contingency plans, using temporary employees or a flexible work force that has been trained in several jobs to offset personnel shortages (Turbin and Rossé 1990).

### **Impaired Quality of Service**

More plausibly, turnover may hinder the delivery of service and retention of customers, additional dimensions of organizational effectiveness (Price 1977; Reichheld 1993). This potential repercussion of turnover increasingly attracts academic and managerial interest as 42 percent of the domestic work force serves food, sells merchandise in retail stores, performs clerical work in service industries, cleans hospitals, schools, and offices, or provides some personal service (Schlesinger and Heskett 1991). Most of all, service occupations accounted for the bulk of the job growth in the 1980s, a trend that will continue until the turn of this century.

Presumably, attrition among service personnel impairs customer service because understaffed offices or stores delay or withhold service (Darmon 1990). Unlike experienced leavers, new employees may also provide less competent or less personalized service because they do not know the clients. Customers may switch firms if their loyalties depend on an affinity with former sales employees (Darmon 1990; Schlesinger and Heskett 1991). Recognizing such loyalty bonds, State Farm recruits new insurance agents who have stable community ties and, thus, long-term relationships with prospective customers, and Olive Garden restaurants hire local managers known and trusted in the community (Reichheld 1993). If satisfied employees make customers feel well treated, disgruntled employees may provide careless service before they leave. (Schneider and Bowen 1992). Turnover also interrupts the transmission of service values and norms, which are essential underpinnings of high quality service, to successive generations of employees (Bowen and Schneider 1988).

Figure 9 summarizes these ramifications, describing how turnover among frontline service workers imperils the quality of service (Schlesinger



**Figure 2-9 Cycle of Failure in Service Company**

and Heskett 1991). To begin, most employees in service-sector industries begin working in low-paying and dead-end jobs. Such dissatisfying working conditions breed poor job attitudes and high turnover, eventually jeopardizing customer service. Specifically, uncaring personnel may deliver poor service and turnover also impairs the quality of service because staff shortages delay or withhold service and inexperienced replacements serve clients (Schneider and Bowen 1992). This chain of consequences make the customers dissatisfied (which further compounds the employees' frustration because the customers are complaining) and inclined to make fewer purchases or absent themselves entirely. Through this cycle of failure, dead-end customer-contact jobs eventually diminish sales and company revenues. Reichheld (1993) portrayed a similar scenario relating employee retention to customer retention.

Consistent with this model, Ulrich et al. (1991) documented lower turnover rates in Sears stores delivering good service than in those providing

poor service. Similarly, internal research at Automatic Data Processing discerned a strong association between retaining service employees and retaining clients (Shellenbarger 1992). Marriott Corporation projected that a 10 percent in turnover reduction would reduce the incidence of customers' not returning by between 1 percent and 3 percent and raise revenues by between \$50 million to \$150 million (Schlesinger and Heskett 1991). Despite these promising findings, more research examining the relationship between turnover and quality of service would further validate this portrait of a cycle of service failure triggered by excessive quits.

***Professional services.*** The type of client service, namely, consumer service, as provided by department stores and restaurants, distinguished from professional service, as provided by doctors and lawyers, may influence the degree to which turnover impairs the service. In particular, the departure of deliverers of professional services may most undermine quality of the customers' experience. Because they are less tangible than consumer services, which offer goods, professional services, which are simultaneously produced for and consumed by each consumer, depend more on the presence and actions of the service personnel (Bowen and Schneider 1988).

Several studies have established, consistent with this reasoning, that departures of health or mental health providers diminish the care given to patients (Price 1977). Specifically, Kahne (1968) first suggested that turnover among mental health hospital staff indirectly boosts the incidence of suicides among patients. Although the two were uncorrelated, Kahne nonetheless interpreted the data as hinting that excessive quits overburden hospital staff and distract them from noticing signals of impending suicide. In follow-up research, Coser (1976) found that the departure of a psychiatrist or senior resident—who oversees and trains residents in a mental hospital—preceded every wave of suicide among patients. Presumably, the departure of their superiors impaired the preparation and social support available to psychiatric trainees, and thus their capacity to recognize suicidal clues. Spector and Takada (1991) predicted that the quality of care in eighty nursing homes varied with the turnover among the staff. Their regression disclosed that low turnover among registered nurses enhances the residents' functional skills (their competence in bathing and eating by themselves) more noticeably than other predictors of patient care does.

Murnane, Singer, and Willett (1988, 1989) presented evidence to suggest that attrition among teachers detracts from the students' achievements. The researchers' survival analysis determined that teachers with high aptitude scores left the profession earlier than those with low aptitude scores. The briefer careers of brighter teachers might erode the quality of education as teachers' aptitude scores covary positively with students' achievement scores. Equally alarming, the researchers found that science teachers in particular abandoned education more readily, a tendency that compounds the acute shortage of science teachers and limits the availability of science instruction.

## **Lost Business Opportunities**

Besides affecting the current success of a firm, personnel turnover may hamper the future survival of the organization. Anecdotal evidence abounds about business opportunities lost because key contributors left (Mobley 1982a). For example, the flight of scientists and engineers can delay or prevent the introduction of new products and threaten future profitability in new markets (Gomez-Mejia, Balkin, and Milkovich 1990; Turbin and Rossé 1990). Equally important, expatriates from existing firms may form competing businesses, such as the Silicon Valley firms, Solectron and Lam (Mandel and Farrell 1992).

## **Increased Administrative Burden**

Organizations may expand their administrative staffing to handle the extra recruiting and training created by excessive attrition and research reviews have observed the practice (Price 1977, 1989). Given intense global competition, the effect is especially troublesome because the overhead costs of domestic firms far exceed those of Japanese or German companies (Thurow 1992). No doubt, the current downsizing in corporate America reflects cost-cutting maneuvers to shrink white-collar employment and reduce administrative costs (Henkoff 1990).

## **Employee Demoralization**

Last, turnover may erode the morale and stability of those who remain employed (Mowday, Porter, and Steers 1982). Their morale suffers because they lose friends (O'Reilly, Caldwell, and Barnett 1989; Price, 1977) and may interpret motives for quitting as social criticisms about the job (Mowday, Porter, and Steers 1982). Awareness that a leaver has a better job elsewhere may change employees' perception of jobs. As a result, the stayers may denigrate their present position in the light of superior alternatives (Hulin, Roznoski, and Hachiya 1985) and begin contemplating other employment (Mobley 1982a). In line with these hypothesized effects, research into small groups finds that personnel instability weakens the cohesion of the group (Sundstrom, De Meuse, and Futrell 1990). Turnover studies conclude that work group conflicts and dissatisfaction with coworkers breed dissatisfaction about the job and subsequently, turnover (O'Reilly, Caldwell, and Barnett 1989; Mobley 1982a; Mowday, Porter, and Steers 1982; Pfeffer 1983; Price and Mueller 1981, 1986). Collectively, these findings imply that colleagues' resignations may undermine the employees' social integration and in turn stimulate more turnover (Price 1989). More revealing, Mueller and Price (1989) reported that rising quit rates in hospital units foreshadowed an inability to keep staff, although quit rates did not affect the units' morale or integration.

All the same, the exodus of their colleagues may not invariably demoralize the remaining members of organizations. Krackhardt and Porter (1985)

argued that employees may form more positive attitudes toward the job to rationalize their remaining employed while their friends quit. Sustaining this claim, the researchers found that the departure of friends reinforced the stayers' satisfaction and commitment. These provocative findings deserve replication. Krackhardt and Porter sampled adolescents who worked for extra spending money, rather than economic survival, in fast-food restaurants whose turnover ran to 200 percent annually.

Staw (1980) speculated that imputed motives for leaving may dictate whether or not turnover demoralizes stayers. That is, if it is believed that leavers quit for reasons that have nothing to do with the organization (to meet family obligations or relocate to different community), employees may not be induced to rethink their own motives for staying. Besides this, job mobility is a traditional avenue for career advancement in some professions (public accounting [Sheridan 1992, for example]). In such occupations, regular departures may not necessarily undermine the stayers' allegiance to the organization.

## POSITIVE CONSEQUENCES FOR THE ORGANIZATION

This section reviews the positive contributions of personnel attrition for organizations, underappreciated effects. Just as it can lower productivity, incur financial costs, and undermine stayers' morale, turnover can have the opposite ramifications under certain circumstances or for certain firms. That is, exits of marginal performers may improve overall firm productivity, while new replacements for leavers can infuse companies with new ideas and technology. Though turnover is obviously costly, personnel shrinkage—especially among administrative staff—can nonetheless reduce overhead costs, a major problem in corporate America. Further, resignations may create more job and empowerment opportunities for employees who remain in firms.

### Displacement of Poor Performers

As noted above, several meta-analyses concluded that turnover generally promotes productivity because functional turnover is more common than dysfunctional turnover (that is, the loss of valued personnel) (McEvoy and Cascio 1987; Williams and Livingstone 1994). Besides this, low performers who remain on the payroll because they cannot find other employment may engage in other forms of withdrawal, such as absenteeism and sabotage (Martin and Schermerhorn 1983; Mobley 1982a). Clearly, the absence of such disruptive employees would enhance the organization's effectiveness (Price 1989).

**Job burnout.** Though turnover of veteran employees may reduce productivity (Price, 1977), job stress or burnout may reverse such productivity losses

from turnover. The relationship between job tenure and performance in stressful work (that of traffic controllers), physically demanding work (that of miners and construction workers), technologically changing work (that of electrical engineers), and public service work (that of social workers or nurses) may be modeled by an inverted-U curve (Staw 1980). While lacking experience, new entrants to these stressful occupations are highly motivated or have more current skills, enabling them to outperform seasoned employees. As newcomers accumulate more job seniority, they may also lose their effectiveness; they become sluggish or burn out and their skills atrophy. Resignations by experienced personnel may not invariably yield productivity losses because the conventional J-shaped performance curve—holding that newcomers perform less effectively than veterans do—may not hold in stressful occupations.

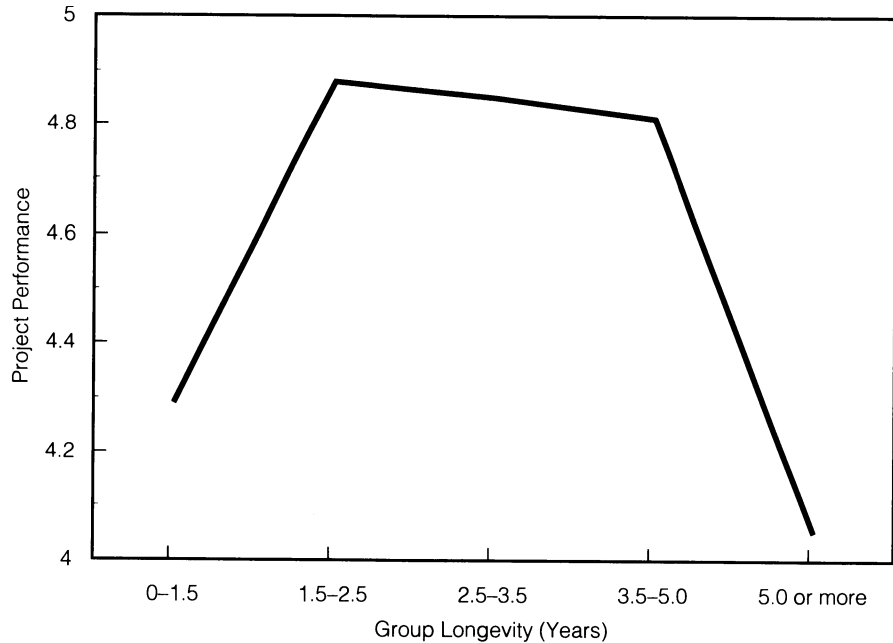
### **Infusion of New Knowledge and Technology**

Beyond performance improvements, turnover may benefit firms through the infusion of new knowledge and technology from the newcomers (Price 1977), a contention that reviews of the literature affirm (Mobley 1982a; Mowday, Porter and Steers 1982; Price 1989; Staw 1980). In particular, research on R&D teams indicates that in groups that are excessively long lived or stable, R&D performance decreases (Katz 1980, 1982; Price 1977). Given the importance of external technical knowledge and new ideas, long-lived R&D teams become ineffective because increasingly they rely on customary work patterns and insulate themselves from outside information that might threaten their comfortable, predictable work habits. Derived from Katz's study of fifty R&D teams (1982), 2-10 illustrates this development.

Similarly, exits from top management may lay the groundwork for necessary changes in entrenched but maladaptive company policies (Staw 1980). Finkelstein and Hambrick (1990) found that long-tenured executive teams followed more persistently company strategies that mirrored industry norms, whereas short-tenured teams adopted novel strategies that departed from industry patterns. Such policy changes may occur only if outsiders, rather than insiders, fill vacant executive posts (Staw 1980). The business press has chronicled revolutionary transformations in IBM, Allied-Signal, and other *Fortune* 500 companies wrought by chief executive officers recruited from other firms (Bremner 1991; Stewart 1993).

### **New Business Ventures**

Exiting employees may provide new business to their former employers. For example, staff accountants leaving public accounting often initiate or continue audit work for their former accounting firms with their current business. Similarly, U.S.-trained Chinese returning to Taiwan to develop its high-tech industry often maintained ties to their former companies (Barnathan, Einhorn and Nakarmi 1992).



**Figure 2-10 Project Performance of R & D Teams as a Function of Group Longevity (Katz, R. (1982). Effects of Group Longevity on Project Communication and Performance. *Administrative Science Quarterly*, 27, 81-104.)**

### **Labor Cost Savings**

Voluntary turnover may help corporations control or lower labor costs by reducing the work force as they face stiffer global competition (Balkin 1992; Henkoff 1990; Jacob 1992; Nussbaum 1991). Annual surveys by the American Management Association find that a third of American companies have cut payrolls in the past three years (Henkoff 1990) and that 3.5 million people have lost their jobs since 1987 (Lesly and Light 1992). Voluntary quits represent a less costly way of downsizing than do layoffs, early retirement inducements, or job buy-outs (Balkin 1992; Faltermayer 1992). Though popular, layoffs incur financial charges (for severance pay and outplacement services), demoralize survivors, and damage public relations, (which hurt future recruitment) (Ashford, Lee, and Bobko 1989; Davy, Kinicki, and Scheck 1991; Faltermayer 1992).

### **Opportunities in Promotion and Empowerment for Stayers**

Writers on turnover suggest that there are various advantages for the remaining employees, although the empirical findings are sparse (Price

1977, 1989; Staw 1980). Exits may expand opportunities for promotion among continuing members by opening up the jobs vacated by the leavers and lessening the competition for promotions (Mobley 1982a; Staw 1980). Still, Mueller and Price (1989) did not find turnover rates in hospital units to increase prospects for advancement. In a similar vein, managerial turnover may empower subordinates (Price 1977, 1989). Conceivably, incoming managers feel uncertain about their authority because they are unfamiliar with the position. They may thus initially consult subordinates for background information and advice. Sustaining this view, Price (1977) interpreted several empirical studies as implying that managerial exits and succession decentralize power, while a Phoenix aerospace company recently organized a department of engineers into a self-managing work unit when their manager left, according to the senior author's personal observations. Last, the departure of participants in divisive interpersonal disputes will alleviate tension and conflict among coworkers (Staw 1980).

## **NEGATIVE CONSEQUENCES FOR THE LEAVER**

This section considers the adverse repercussions to employees who quit their jobs. Traditionally, managers and scholars have worried about how turnover harms organizations. Yet attention to negative consequences for leavers may pay dividends for companies. They can forewarn prospective leavers about the full ramifications of their decisions to exit the firm—namely, loss of seniority benefits, transition stress in a new job, relocation costs and family dislocation, and disruption to spouses' careers. Such warnings can help prospective quitters to make wiser decisions about changing jobs as well as deter their exits. Scholarly inquiry into such consequences would refine conceptualizations about turnover, identifying more fully the reasons that inhibit dissatisfied employees from quitting (Mobley, 1977; Rusbult & Farrell, 1983).

### **Forfeiture of Seniority and Fringe Benefits**

Research and anecdotal evidence identify sundry personal disadvantages for leavers, notably the surrender of various rewards of organizational membership (Mobley 1982a; Staw, 1980). Theorists on turnover have long insisted that the expectancy of forfeiting job seniority, unvested pensions, and other fringe benefits deters turnover (Hom and Griffeth 1991; Mobley 1977; Rusbult and Farrell 1983). Quite likely, the loss of health-care benefits would be the most costly to leavers at present. Recent nationwide polls report that between 15 percent and 20 percent of all workers said they or a family member *remained* in a job because of concerns about health benefits (Clements 1993; Lewin 1991). Indeed, a Harvard economist estimates that fear of losing health coverage reduces job mobility by 25 percent (Labor Letter *Wall Street Journal*, November 2, 1993). Explaining what it styled "job-lock," the *New York Times* recounted cases of employees whose cancer or heart disease (or whose



dependents' long-term treatment) prevented them from resigning because new insurers would deny them health coverage (Lewin 1991). Another poll determined that the prospect of higher personal expenses for medical coverage at another company does more to discourage employees from quitting than do specific medical conditions (Clements 1993). More convincingly, research by labor economists confirmed that pension and health-care coverage deters job turnover (Ippolito 1991; Mitchell 1983).

### **Transition Stress in New Employment**

Researchers into socialization and turnover further contend that quitters encounter stress during their transition into a new job (Mobley 1982a; Feldman and Brett 1983). Their new employment may disappoint the leavers, failing to confirm their expectations and, therefore, eliciting dissatisfaction and turnover (Wanous 1980; Wanous, Poland, Premack, and Davis 1992). Leavers entering new work roles must repeat basic tasks of socialization, such learning work practices and winning acceptance from new colleagues (Feldman 1975, 1988). Acknowledging this consequence of leaving, Feldman and Brett (1983) documented various strategies for coping with transition stress (such as working longer hours and delegating more responsibilities) used by employees who simply changed jobs within the same company.

### **Relocation Costs**

Leavers may face additional losses if they move to new geographic regions (Mobley 1982a; Mowday, Porter, and Steers 1982; Rusbult and Farrell 1983). Obviously, leavers bear the financial costs of moving, especially if they do not receive full reimbursement from their new employer or if they move to a region where the living costs are higher (Mowday, Porter, and Steers 1982). Apart from moving expenses, relocating leavers may sever their social support networks (Zedeck and Mosier 1990). Various empirical studies implicate this potential exit cost, showing that extensive friendships with coworkers and relatives within a community reinforce the likelihood of remaining in a job (Blegen, Mueller, and Price 1988; Rusbult and Farrell, 1983).

Unfortunately, writers on turnover have neglected to consider the cost of family separation when married leavers relocate but leave their families behind, perhaps because of a spouse's employment or the children's education. The armed services have long known that protracted and repeated family separations caused by military assignments abroad produce not only marital strain but also attrition among soldiers seeking to preserve their marriages (Brown, Carr, and Orthner 1983; Hunter 1983). Researchers on turnover must acknowledge the effects of quitting and relocating on child custody arrangements among divorced leavers. That is, parents who move and do not have custody of their children may find their ties to their children severed; parents who do have custody and relocate may face lawsuits from former spouses trying to preserve visitation rights (Lublin 1992).

Theorists on turnover have also overlooked the ways in which relocation can dissolve the social network of a leaver's family, who must adapt to a new community without support from friends or extended family. Research on expatriate managers attests to such family dislocations in adjusting to new cultural milieus. Indeed, the failure of a family to adapt culturally has prematurely terminated overseas assignments (Dowling and Schuler 1990).

Relocating leavers and their families may lose valued community services, such as those of the family physician and good schools (Abelson and Baysinger 1984; Rusbult and Farrell 1983). Indicative of these costs, Turban, Campion, and Eyring (1992) found that long-term tenure in a *community* discourages people from moving to new jobs elsewhere and Hunter (1983) observed that many navy personnel chose to leave the U.S. Navy because they disliked the frequent moves imposed on their families.

### **Disruption of Spouses' Careers and Marital Discord**

The geographic relocation of leavers who are married to working spouses may disrupt their spouses' careers (Mobley 1982a; Zedeck and Mosier 1990). Attesting to its impact, Turban, Campion, and Eyring (1992) found that more married employees refused offers by employers to relocate than did single employees. Milliken, Dutton, and Beyer (1990) reported that between 25 percent and 30 percent of employees declined promotions that required relocation, mainly to avoid threatening the careers of their spouses. Conversely, members of dual-career couples who resign to follow their relocating spouses may not obtain comparable employment in the new community (Lublin 1993). In particular, trailing husbands adhering to traditional sex roles may feel psychological distress if they cannot find work or become underemployed (Staines, Pottick, and Fudge 1986). Indeed, their wives' employment status would threaten their cherished status as primary breadwinners, and this sex-role reversal would produce marital strain (Lublin 1993; Mirowsky 1987). Nonetheless, this turnover cost may accelerate as men will constitute 25 percent of trailing spouses by the year 2000, according to the Employee Relocation Council, up from 15 percent in 1990 (Lublin 1993).

### **POSITIVE CONSEQUENCES FOR THE LEAVER**

Leavers may reap certain benefits from turnover (Mobley 1982a; Staw 1980). For one, leavers may assume a better position—one that better matches their talents and interests—or escape a stressful job (Mowday, Porter, and Steers 1982). In a national sample of young men, Antel (1991) found that job quitters often obtain higher wages in their new employment, especially if they underwent an intervening period of joblessness. Indeed, a new position may rejuvenate leavers, instilling a greater commitment to work (Mobley 1982a). Moreover, leavers—assuming new (or no) employment that

offers a more convenient work schedule—can devote more time to other endeavors, such as family or avocations (Hom and Griffeth 1991; Hulin, Roznowski, and Hachiya 1985). Exit surveys reveal that young female nurses and teachers often resign to bear or raise children (Cavanagh 1989; Murnane, Singer and Willett 1988). A sociological study found that young adults often opt out of full-time employment to attend school (Kandel and Yamaguchi 1987). Relocation may provide leavers and their families with better schools, safer communities, or more attractive climates and recreational opportunities (Cascio 1991; Mowday, Porter, and Steers 1982; Turban, Campion and Eyring 1992).

Leavers, abandoning current positions to trail spouses, who are accepting better career assignments elsewhere, may willingly and gladly assume this sacrifice if they had already fulfilled their career ambitions or if they welcome the opportunity to switch careers—to open a business or return to school perhaps (Lublin 1993). Such “sacrifice” is not uncommon: Exit surveys show that many nurses quit when their spouses relocate (Donovan 1980). Members of dual-career couples may preserve their marriage by quitting firms that request them to transfer. For example, female managers at Mobil Corporation often resigned for fear that their husbands would not go along with the move (Lublin 1993), while military officers often left the armed services to appease spouses who rejected the harsh military life (Hunter 1983).

## FUTURE DIRECTIONS FOR RESEARCH

In summary, turnover introduces various contradictory consequences for leavers and employers. Some are advantageous for organizations or individuals, others are not. Such contradictory outcomes make it difficult, however, to forecast the net impact (Staw 1980). Toward this end, we must develop and test more complex conceptualizations of the impact of turnover rather than use simple bivariate associations (see Price 1989). We could then estimate the net effect of turnover on a particular outcome (for example, productivity or satisfaction) by modeling and assessing the opposing intervening processes it stimulates. For example, turnover may increase job satisfaction. When disagreeable colleagues leave and the opportunities for promotion expand, but satisfaction may decrease by prompting employees to question their motivation for staying (*ibid.*). A structural model test may find, however, that these varied effects cancel one another and that the net effect of turnover on job satisfaction is zero (Podsakoff, Williams, and Todor 1986). Consistent with this approach, Mueller and Price (1989) found that certain consequences of leaving did not materialize once they had statistically controlled other consequences and turnover determinants with multivariate statistical techniques.

Future research might examine turnover effects longitudinally to trace their distribution over time (Price 1989) to reveal that some effects are short

term, while others are long term. Beyond this, a particular consequence may manifest *different* effects over time. Thus, some outcomes may appear harmful in the short term but yield long-term benefits. For instance, the departure of top executives from troubled companies may prove temporarily disruptive but pave the way to new strategic initiatives that will revitalize these companies.

Besides longitudinal study, more research on various moderators that shape the effects of turnover will advance the understanding of its consequences, as will examinations of nonlinear effects (ibid.; Staw 1980). Future inquiry must explore the ways in which the effects of turnover change at different levels of analysis (Mueller and Price 1989). For example, turnover among personnel may impair a department's productivity by disrupting production but enhance the corporation's productivity by reducing the work force. Further investigations must differentiate the effects of voluntary and involuntary turnover, which likely diverge. For example, whether quitting demoralizes remaining employees may depend on whether they believed that the leavers departed voluntarily or involuntarily (Staw 1980). More empirical work on the consequences of turnover may also improve managers' projections of the costs and benefits of turnover interventions and alert them to potential side effects (see Staw 1980). To illustrate, some programs may reduce departures but evoke counterproductive effects, such as the retention of marginal employees (Sheridan 1992). Thus, research documenting side effects would help managers make more informed decisions about choosing turnover interventions that yield *net* positive effects for their organizations apart from reducing quits.

CAUSES AND  
CORRELATES OF TURNOVER

Many reviews of the antecedents and correlates of turnover have appeared over the years (Brayfield and Crockett, 1955; Hulin, Roznowski, and Hachiya 1985; Mobley 1982a; Mobley, Griffeth, Hand, and Meglino 1979; Muchinsky and Tuttle 1979; Porter and Steers 1973; Price 1977; Steers and Mowday 1981). In this chapter, we update earlier reviews and refine them using meta-analysis, which improves upon traditional or narrative reviews, wherein a reviewer draws conclusions from his or her subjective analysis of empirical findings (Hunter and Schmidt 1990b). For example, a narrative review may conclude that job satisfaction is unrelated to turnover because their correlations often vary widely across different samples. Some studies find positive, others negative, and still others insignificant correlations. These conflicting results may, however, reflect statistical artifacts, such as sampling error and inconsistent instrument reliabilities across studies.

Narrative reviews overlook the small sample sizes of many empirical findings. Yet small samples weaken statistical power, attenuating the statistical significance of variable relationships (Hunter and Schmidt 1990b). Rather than relying on informal inspection, meta-analysis statistically summarizes measures of variable association from different studies. Unlike qualitative reviews, this procedure more precisely estimates the true relationship between two variables (and their generality) by correcting for methodological artifacts. Typically, meta-analysis averages correlations (after weighing them by their sample size) from different studies to correct for sampling error. The mean correlation is then adjusted for random measurement errors and other artifacts (see Hunter and Schmidt 1990b). The result is the correlation coefficient expected in the population. Importantly, this population correlation discloses the magnitude or strength of variable relationships. Narrative reviews generally strive to establish whether or not a relationship exists. Last, meta-analysis estimates the generality of a relationship, determining whether variability in correlations between studies is real or illusory. If it is genuine, other situational or population variables will moderate this relationship. In other words, the association between two variables is not constant but changes across different settings or populations.

Recognizing these advantages, scholars of turnover (including Carsten and Spector 1987; Cotton and Tuttle 1986; Hom, Caranikas-Walker, Prussia, and Griffeth 1992; Mathieu and Zajac 1990; McEvoy and Cascio 1985, 1987; Premack and Wanous 1985; Steel and Griffeth 1989; Steel, Hendrix, and Balogh 1990; Steel and Ovalle 1984; Tett and Meyer 1992; Wanous, et al. 1992; Williams and Livingstone 1994) have increasingly applied meta-analyses to combine research findings. These meta-analyses have, how-

ever, investigated a small number of turnover determinants and correlates, such as perceived alternatives (Steel and Griffeth 1989) or organizational commitment (Mathieu and Zajac 1990), rather than summarize a broad array of turnover correlates and causes. Only Cotton and Tuttle (1986) comprehensively reviewed multiple turnover correlates, although they assessed only the *significance* of their relationships to turnover.

In this chapter, we report a comprehensive meta-analysis that covers more turnover predictors and correlates than most meta-analyses. Extending narrative reviews, we estimate the predictive strength of turnover antecedents and determine the generality of correlations between predictors and turnover—that is the existence of moderators that might condition those relationships. We seek to establish a bedrock of empirical facts about turnover, which may refute theoretical propositions or constitute a basis for theoretical interpretation or synthesis.

### META-ANALYTICAL PROCEDURE

First, we reviewed the research literature, using computerized sources and a manual search of leading journals in human resource management, industrial/organizational psychology, and organizational behavior, to uncover correlations between turnover and its antecedents (and sample sizes and reliability estimates where available). (If other association indices were reported, we transformed those statistics into correlations using Schwarzer's [1989] meta-analysis program.) We relied on previous turnover meta-analyses and narrative reviews to identify relevant studies. Our review *excluded* studies on aggregate quit rates because our intention was to explain turnover among individuals. Aggregate turnover rates may constitute a different construct and do not directly provide insight into the origins of the decisions that influence turnover among individuals (Mobley et al. 1979). Although aggregate quit rates are computed by combining individual turnover within organizations or departments (Hulin, Roznowski, and Hachiya 1985), the meaning of the turnover construct changes across different levels of aggregation (Rousseau 1985; Terborg and Lee 1984). For example, job vacancy rates correlate differently with aggregate and individual quits (Hulin, Roznowski, and Hachiya 1985; Steel and Griffeth 1989).

Following Hunter, Schmidt, and Jackson's procedure (1982), we corrected correlations and their variances for sampling and measurement errors, the foremost sources of spurious between-study variation (Premack and Hunter 1988). (Regrettably, most studies failed to describe the extent of range restriction in predictor variables.) To correct sampling error, we first averaged correlations between turnover and a given predictor, weighing by sample size. Next, we adjusted this correlation for unreliability by inserting the predictor's reliability coefficient (averaged across different samples) into the classic attenuation correction formula (Hunter and Schmidt 1990b, p. 119). Because of the ongoing controversy surrounding such corrections

(Bass and Ager 1991; Steel, Shane, and Griffeth 1990; Williams 1990), we did not correct turnover for dichotomy or nonoptimal base rate.

Three procedures tested the true generality of each correlation between predictor and quit. These tests estimated nonartifactual variation of this correlation, to detect whether or not (unknown) moderators condition it. One moderator test assessed the degree to which statistical artifacts explain variance in observed correlations (Hunter and Schmidt 1990b). Because our meta-analysis only corrected for sampling error and unreliability, we defined 60 percent (or more) artifactual contribution as signifying *no* moderators (see Hom, Caranikas-Walker, Prussia, and Griffeth 1992; Mathieu and Zajac 1990).

Second, a chi-square test revealed whether between-study variance in observed correlations was solely attributable to sampling error (see Wanous et al. 1992). Third, we computed 95 percent credibility intervals (using variances fully corrected for experimental artifacts) around true population correlations (Whitener 1990). Credibility intervals including zero signal moderators and suggest that correlations can assume signs opposite to that of the population correlation. If these tests collectively reject an invariant relationship, the population estimate constitutes an average of *dissimilar* correlations from distinct subpopulations (Hunter and Schmidt 1990b). To identify these subpopulations, a meta-analytical researcher would pursue additional moderator analyses (see Hom et al. 1992). Such analyses are, however, beyond the scope of this chapter, the primary objective of which is a basic overview of research into turnover.

For the most part, we classified the antecedents of turnover using the taxonomy developed by Mobley et al. (1979). Thus, the chapter is organized into discussion of (1) individual and personal determinants; (2) overall satisfaction; (3) organization and work environment factors; (4) job content factors, and (5) external environment factors. To this taxonomy, we added (6) withdrawal process variables, and (7) other withdrawal behaviors.

In Tables 3-1 through 3-6, we show correlations between antecedents and voluntary quits, reporting the number of samples and overall sample size on which they were based and moderator tests of their between-sample stability. The population correlation (corrected mean  $r$ ) represents the best measure of the relationship between turnover and a determinant because this index was derived from double corrections for measurement and sampling errors. The three moderator tests indicate whether or not this population correlation generalizes across different settings, populations, or circumstances.

On the whole, moderator findings tempered all generalizations, showing that most correlations changed across settings or populations. Specifically, most indices of the contribution of artifactual variance to observed variance fell below the 60 percent threshold value, suggesting that statistical artifacts *did* not entirely account for between-study variation in correlations. Most credibility intervals included zero, and most chi-square tests were significant, indicating that sampling error did not entirely underlie

between-study variance. Nevertheless, we proceed with some tentative conclusions about the generality of turnover antecedents and correlates. Given many modest population estimates, we thus suggest possible moderators and potential weaknesses with existing measures or variables. After all, a meta-analysis is only as good as the data available for aggregation.

### Demographic and Personal Characteristics

The demographic and personal characteristics of an individual included are cognitive ability, education, training, marital status, kinship responsibility, relatives, children, weighted application blanks (described below), age, sex, and tenure. Most personal attributes modestly predicted resignations, although their predictive strength varied (see Table 3-1).

Contrary to popular stereotypes, women did not quit their jobs more readily than did men; rather, they were more loyal employees ( $r = -.07$ ). Still, kinship responsibility (a complex measure of family obligations based on number of children, their age, and marital status [Blegen, Mueller, and Price

**Table 3-1 Individual Demographic and Personal Characteristics**

PREDICTOR	<i>k</i>	<i>N</i>	Mean <i>r</i> ( $\bar{r}_{obs}$ )	Corrected Mean <i>r</i> ( $\bar{r}_{cor}$ )	Corrected Variance ( $V_{pop}$ )	Percentage Artificial Variance	95% Credibility Interval	$\chi^2$
<b>Characteristics</b>								
Cognitive ability	2	1,879	-.09	-.09	.0035	30.19	-.19 to .01	6.62*
Education	29	8,915	.07	.07	.0030	52.21	-.04 to .17	55.54*
Training	4	3,394	-.07	-.08	.0074	15.69	-.24 to .09	25.49*
Marital status	23	7,599	.01	.01	.0076	28.48	-.16 to .18	80.76*
Kinship responsibilities	9	5,354	-.10	-.10	.0053	26.90	-.25 to .04	33.46*
Relatives	2	440	.22	.22	.0000	100.00	.22 to .22	1.75
Children	4	727	-.14	-.14	.0000	100.00	-.14 to -.14	.63
Weighted application blanks	6	1,329	.31	.33	.0704	5.84	-.19 to .85	102.73*
Age	29	12,356	-.12	-.12	.0062	26.93	.27 to .03	107.67*
Sex	15	6,748	-.07	-.07	.0134	14.11	-.29 to .16	106.28*
Tenure	36	12,106	-.16	-.17	.0171	16.23	-.39 to .07	221.77*

Note. *k* = the number of samples; *N* = the number of employees.

Marital status was coded as Married = low score; Single = high score.

Sex was coded as Male = low score; Female = high score.

Mean *r* = average correlation across all studies (weighted by their sample size); corrected mean *r* = average correlation across all studies which has been corrected for measurement errors; corrected variance = variance of corrected correlations across studies; percentage artificial variance = degree to which statistical artifacts explain variance in observed correlations; 95% credibility interval = interval around the mean corrected correlation which comprises 95 percent of corrected correlations; and  $\chi^2$  = chi-square test of whether between-study variance in observed correlations is entirely due to sampling error.

\* $p < .05$ .

Source: Authors' calculations.



1988]) and number of children improved retention, and the number of relatives in the community accelerated organizational exits. As expected, older employees with long tenure in a company quit less often than younger and short-tenure employees did. This finding possibly reflects a greater long-term job investment by senior personnel (Rusbult and Farrell 1983). The weighted application blank correctly identified mobile personnel. Like an employment test, this procedure scores a job applicant's responses to questions on an application blank based on a scoring key that empirically differentiates between short- and long-term employees (Cascio 1976). (This methodology is described further in Chapter 9.)

### Overall Job Satisfaction and Turnover

Consistent with most theoretical perspectives, job dissatisfaction was related ( $r = -.19$ ) to resignations (Mobley 1977; Porter and Steers 1973; Price and Mueller 1986; Steers and Mowday 1981). That is, dissatisfied employees (presumably, reacting to poor working conditions [see Mobley et al. 1979; Price and Mueller 1986]) more readily abandoned their present employment. The relationship between satisfaction and quitting, estimated from seventy-eight studies covering 27,543 employees, is shown in Table 3-2. Surprisingly, this correlation is not substantially different from that determined in two previous meta-analyses (Carsten and Spector 1987; Steel and Ovalle 1984), probably because all these analyses used the same studies.

Our moderator analysis further demonstrated that the correlation between satisfaction and quitting varied across studies. Other meta-analytic research has, however, identified moderators of this relationship by correlating moderator scores with study correlations or comparing correlations from meta-analyses done on subgroups formed by dividing samples according to moderator scores. For instance, Carsten and Spector (1987) and Steel, Hendrix, and Balogh (1990) showed that the association between job satisfaction and turnover is stronger when the time span between administration of the questionnaire and assessment of the turnover is shorter (Mobley et al. 1979). Steel and Ovalle (1984) found a higher agreement between satisfaction and retention for military than for civilian samples, possibly because decisions about reenlistment are more programmed and entail a deeper personal commitment (legal obligation for a lengthy tour of duty) than do civilians' decisions to quit. The correlation is stronger during periods of low unemployment but weaker during periods of joblessness. As Carsten and Spector explained ". . . even though people are not satisfied with their jobs, they will be less likely to quit if there are few (or no) alternatives." (1987, 378). By comparison, Steel and Ovalle (1984) found that between white- and blue-collar occupations distinctions did not moderate the correlations between satisfaction and quitting.

Met expectations—a leading source of job satisfaction according to prevailing thinking (Porter and Steers 1973; Wanous 1980; Wanous et al., 1992)—also predicted turnover ( $r = -.13$ ). Put differently, employees quit

**Table 3-2 Job Satisfaction and Organizational and Work Environment Factors**

PREDICTOR	<i>k</i>	<i>N</i>	Mean <i>r</i> ( <i>r</i> <sub>obs</sub> )	Corrected Mean <i>r</i> ( <i>r</i> <sub>cor</sub> )	Corrected Variance ( <i>V</i> <sub>pop</sub> )	Percentage Artifactual Variance	95% Credibility Interval	<i>X</i> <sup>2</sup>
<b>Job Satisfaction</b>								
Job satisfaction	78	27,543	-.17	-.19	.0128	19.91	-.37 to .03	391.76*
Met expectations	8	1,435	-.12	-.13	.0086	41.94	-.31 to .05	19.13*
<b>Organization and Work Environment</b>								
Compensation								
Salary	7	3,763	-.06	-.06	.0025	42.59	-.16 to .04	16.44*
Pay satisfaction	16	4,094	-.03	-.04	.0071	41.69	-.20 to .13	38.43*
Distributive justice/ Pay equity	9	4,110	-.07	-.07	.0001	77.22	-.12 to -.02	11.66
<b>Leadership or Supervision</b>								
Participation	5	1,584	-.08	-.08	.0031	53.50	-.19 to .03	9.35
Leader-member exchange	3	161	-.21	-.23	.0167	55.65	-.48 to .03	5.39
Supervisory satisfaction	14	3,002	-.10	-.10	.0018	74.53	-.19 to -.02	18.82
Leader communication	8	5,185	-.11	-.11	.0020	45.71	-.20 to -.03	17.54*
<b>Peer Group Relations</b>								
Cohesion	3	412	-.12	-.14	.0000	100.0	-.14 to -.14	1.90
Integration	4	3,394	-.08	-.10	.0042	29.29	-.22 to .03	13.95*
Coworker satisfaction	11	1,313	-.10	-.10	-.0033	74.19	-.22 to .01	14.84
<b>Role States</b>								
Role clarity	3	391	-.21	-.24	-.0090	100.00	-.21 to -.21	.10
Role overload	3	2,627	.10	.11	.0000	100.00	.11 to .11	.27
Role conflict	2	244	.15	.16	-.0090	100.00	.15 to .15	.90
<b>Company Climate</b>								
Centralization	4	2,506	.08	.09	.0022	46.08	.00 to .18	8.69*
Supportiveness	2	256	.02	.02	.0052	62.47	-.12 to .16	3.20
<b>Promotional Opportunities</b>								
Promotions	24	8,999	-.14	-.15	.024	11.42	-.42 to .15	218.85*
Promotion satisfaction	13	3,276	-.12	-.14	.012	29.25	-.32 to .07	47.87*
Promotional opportunity	8	4,878	-.09	-.10	.007	23.61	-.24 to .06	38.12*
Actual promotions	3	845	-.45	-.45	.034	6.13	-.81 to -.09	48.91*
Actual promotions without outlier	2	657	-.35	-.35	.000	100.00	-.35 to -.35	.15

Note. *k* = the number of samples; *N* = the number of employees.

Mean *r* = average correlation across all studies (weighted by their sample size); corrected mean *r* = average correlation across all studies which has been corrected for measurement errors; corrected variance = variance of corrected correlations across studies; percentage artifactual variance = degree to which statistical artifacts explain variance in observed correlations; 95% credibility interval = interval around the mean corrected correlation which comprises 95 percent of corrected correlations; and *X*<sup>2</sup> = chi-square test of whether between-study variance in observed correlations is entirely due to sampling error.

\**p* < .05.

Source. Authors' calculations.

jobs if their work experiences disconfirm the expectations they had about their jobs before taking them up; they remained employed if their experiences confirm their initial expectations. The correlation between met expectation and quitting fell below that between satisfaction and quitting, which suggests that met expectations may affect turnover through job satisfaction (Porter and Steers 1973; Wanous et al. 1992).

### Organization and Work Environment

The results calculated from meta-analyses of compensation, leadership and supervision, opportunities for promotion, relations with peer groups, role states, and the climate of the company are also shown in Table 3-2.

**Compensation.** Although writers on compensation commonly believe that dissatisfaction with salary and pay strongly underlie turnover (Gomez-Meija and Balkin 1992a; Milkovich and Newman 1993), we find very little direct support for this view. The routine omission of other forms of compensation, notably fringe benefits and incentive pay (Heneman 1985), surely understated the effect of compensation. In marked contrast, the popular press and labor economic studies have underscored the ways in which pension and health coverage and profit sharing significantly improve retention rates in the work force (Ippolito 1991; Peel and Wilson 1990). More than this, most turnover scholars have considered pay practices in a single company or occupation. Such limitations possibly underestimated the impact of pay on turnover (Steel and Griffeth 1989).

**Distributive justice or inequity.** Like dissatisfaction about pay, the perceived fairness of levels of compensation—the justice of the distribution of pay and the equity of rewards—modestly predicted turnover. Here again, the traditional exclusion of fringe benefits and incentive pay doubtlessly underestimated the effects of perceptions of justice on decisions to quit (see Price and Mueller 1981, 1986). Existing studies of turnover neglected to consider the procedural fairness of organizational rules and procedures for allocating rewards (Greenberg 1990). Conceivably, procedures that are perceived as just may do more to encourage employees to stay in their jobs than a just pay distribution does. For instance, Folger and Konovsky (1989) showed that satisfaction with the fairness of a merit-pay distribution did more to promote commitment to the organization than did satisfaction with the amount of the distribution.

**Leadership and supervision.** The measure styled leader-member exchange predicted turnover more accurately than did measures of participative management, satisfaction with the supervisor, and the leader's communication skills. The latter measures focus on a particular action by a leader or an attitude toward the leader, whereas leader-member exchange is a more general construct summarizing these and other benevolent actions on the part of supervisors. Specifically, leader-member exchange represents the interdependence

between superiors and subordinates and reflects a host of benefits—including influence on decision making, information, and social support—given to subordinates who develop high-quality exchanges with their superiors (Dansereau, Graen, and Haga 1975; Graen and Scandura 1986).

Notwithstanding current findings, future research (and meta-analyses) may disclose that new forms of participative management may become pivotal deterrents to turnover (Manz and Sims 1989). At present, organizations are increasingly flattening the management structure and delegating more authority that was formerly held by supervisors to front-line employees (Jacob 1992). Modern developments in employee empowerment and self-management greatly enlarge the workers' sphere of influence beyond that of conventional participative management, in which workers are given control only over the methods or schedules of their jobs (Hackman and Oldham 1980).

**Peer-group relations.** Good peer-group relations, consisting of cohesion among the work group, integration (the degree to which an individual has close friends in the organization [Price and Mueller 1981]), and satisfaction with coworkers decreased turnover. The modest correlations suggest that peer-group relations are remote causes of turnover and are one source of job satisfaction (ibid. 1986). Nonetheless, in few studies of turnover have the formation of cohesion in work groups and integration been investigated. Work in organizational demography, although it has overlooked the underlying mechanisms of value conflicts and miscommunication among heterogeneous members, has demonstrated that heterogeneity within the group induces decisions to quit (Jackson, Brett, Sessa, Cooper, Julin, and Peyronnin 1991; O'Reilly, Caldwell, and Barnett 1989; Pfeffer 1983). Thus, more inquiry into the integration of a group's members may identify more potent influences exerted by coworkers on job separations.

**Role states.** Table 3-2 shows that role clarity (clear perceptions about one's role in the organization) lowered turnover and that role overload and role conflict increased it. Even though these results supported theoretical expectations (Katz and Kahn 1978), they are based on only a few studies and so should be interpreted cautiously. All the same, the size of their modest effect affirms certain perspectives on commitment and turnover that regard role states as remote influences that are mediated by cognitions about terminating work and attitudes toward the job (Mathieu and Zajac 1990; Netemeyer, Johnston, and Burton 1990).

**Company climate.** Characteristics of an organization only minimally affected quits, possibly because they are only distal causes (Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1981, 1986). That is, centralization (or the degree to which power is concentrated in the higher echelons of management) and supportiveness barely predicted turnover (see Table 3-2).

Though scarcely affecting the departures of individuals, the attributes of a company may still considerably influence aggregate turnover rates (see Alexander 1988; Price 1977; Terborg and Lee 1984). As noted earlier, causal determinants may affect aggregate and individual quits in different ways because the turnover construct may shift in meaning across different levels of aggregation (Price and Mueller 1986; Rousseau 1985).

Given the complexity of organizational climate, our consideration of only two dimensions probably underestimated the impact of climate (see James and James 1989). For instance, Sheridan (1992) considered other attributes of climate and found that new accountants working in firms that valued interpersonal relationships stayed in the jobs there much longer than did those working in firms that emphasized accomplishment of tasks, the median survival time being forty-five months and thirty-one months respectively. Most of all, the *fit* between dimensions of climate and personal values may shape loyalty to a company more than effects of the climate itself. In keeping with this view, Chatman (1991) and O'Reilly, Chatman, and Caldwell (1991) found that new accountants whose personal values matched those of their employers exhibited higher inclinations to stay.

**Promotions.** The data in Table 3-2 reveal that promotions modestly predicted turnover ( $r = -.15$ ). The inclusion of zero by its credibility interval and the significant chi-square indicate that this relationship varies across different conditions. Perhaps, dissimilar constructs assessed by promotion indices may underpin such between-study variation (Hunter and Schmidt 1990b). That is, current scales might assess different, though related, aspects of job promotions, among them satisfaction with promotion, opportunities for promotion, or actual promotions. As Carson, Carson, Griffeth, and Steel (1993) observed, these operationalizations differ as to whether they measure affect (satisfaction with promotion), beliefs (perceived opportunities for promotion), or behaviors (actual promotion). Moreover, equivalency in measurement cannot be assumed because employees may be dissatisfied with their current rate of promotion but still perceive ample prospects for advancement. Conversely, promoted employees may feel satisfied with their *current rates* of advancement, but expect limited promotional *opportunities* beyond their current position.

Because these operationalizations affect turnover in distinctly different ways, we computed separate meta-analyses for them and present the results in Table 3-2. Here again, satisfaction about promotion and perceived opportunities for promotion modestly predicted turnover. Actual promotions, by contrast, strongly predicted turnover ( $r = -.45$ ). This sizable correlation was derived from three studies; one sample may represent an outlier, its inflated correlation being  $-.81$  (Stumpf and Dawley 1981; second sample). After removing this aberrant element, the corrected correlation between actual promotion and turnover shrank from  $-.45$  to  $-.35$ , which still indicates that actual promotions have an appreciable impact on retention.

Table 3-3 Job Content

PREDICTOR	<i>k</i>	<i>N</i>	Mean <i>r</i> ( $\bar{r}_{obs}$ )	Corrected Mean <i>r</i> ( $\bar{r}_{cor}$ )	Corrected Variance ( $V_{pop}$ )	Percentage Artificial Variance	95% Credibility Interval	$\chi^2$
<b>Job Content/Job Characteristics</b>								
Job scope	7	1,604	-.12	-.13	.0261	16.08	-.44 to .19	43.53*
Routinization	6	3,707	.08	.09	.0011	64.69	.03 to -.16	9.35
Work satisfaction	25	7,632	-.16	-.19	.0142	22.50	-.42 to .05	111.13*
Job stress	5	779	.17	.19	.0000	100.00	.19 to .19	1.18
Intrinsic/Internal Motivation	2	1,681	-.12	-.13	.0000	100.00	-.13 to -.13	.24
Job involvement	8	2,816	-.13	-.17	.0147	24.04	-.40 to .07	33.27*
Professionalism	4	3,390	-.01	-.02	.0000	100.00	-.02 to -.02	2.77
Managerial motivation	2	753	-.14	-.15	.0001	95.72	-.17 to -.12	2.10

Note. *k* = the number of samples; *N* = the number of employees

Mean *r* = average correlation across all studies (weighted by their sample size); corrected mean *r* = average correlation across all studies which has been corrected for measurement errors; corrected variance = variance of corrected correlations across studies; percentage artifactual variance = degree to which statistical artifacts explain variance in observed correlations; 95% credibility interval = interval around the mean corrected correlation which comprises 95 percent of corrected correlations; and  $\chi^2$  = chi-square test of whether between-study variance in observed correlations is entirely due to sampling error.

\**p* < .05.

Source: Authors' calculations.

### Job Content and Intrinsic Motivation

The accuracy of job content and intrinsic motivation as predictors of turnover is shown in Table 3-3.

**Job scope.** Job scope, the overall complexity and challenge of work duties, sustained job incumbency, although this effect may depend on moderators. A likely moderator is the strength of growth need. Hackman and Oldham (1980) conceptualized that job complexity most enhances satisfaction with work and commitment to the organization in employees who have strong growth needs. Loher, Noe, Moeller, and Fitzgerald's meta-analysis (1985) found that job complexity and job satisfaction correlated .57 for employees with high growth needs but correlated only .32 for those with weak growth needs.

**Routinization.** Routinization, or the degree to which a job is repetitive (Price and Mueller 1981), has been examined in a few studies. Predictably, employees doing routine work were likely to quit: *r* = .09.

**Work satisfaction.** Work satisfaction—reflecting experienced affect to the entire intrinsic attributes of the job—predicted terminations better than did perceptions of specific task attributes. Yet work satisfaction exhibited a

weaker relationship to exits ( $r = -.19$ ) than it did in Steel and Ovalle's meta-analysis (1984). Still, the larger number of studies reviewed in this meta-analysis ( $k = 25$  compared to  $k = 15$ ) could account for the discrepancy of result. Other moderator tests also suggest variations between studies, which may reflect different unemployment rates across studies and varying time intervals between measurements of satisfaction and turnover across samples (Carsten and Spector 1987; Steel and Ovalle 1984; Steel and Griffeth 1989).

**Job stress.** Though neglected by researchers, job stress moderately and positively predicts turnover ( $r = .19$ ), a finding that is shown in Table 3-3.

**Intrinsic or internal motivation.** Theories of job characteristics hold that internal motivation—or self-esteem based on job accomplishments—is derived from doing complex, enriched work (Hackman and Oldham 1980). Because complex jobs bind employees to firms, it is not surprisingly that internal motivation also ( $r = -.13$ ) decreases the incidence of withdrawal from an organization.

**Job involvement.** Logically, employees who feel involved in their jobs, psychologically identified with their jobs, may feel bound to their jobs (Kanungo 1982). This intuitive hypothesis is supported by data shown in Table 3-3 indicating that involvement with a job ( $r = -.17$ ) moderately predicts a diminishment of turnover.

**Professionalism.** Many sociologists contend that norms of efficiency and bureaucratic control in the work place clash with professional standards and ethical codes, weakening people's commitment to an organization (Abbott 1988; Kramer 1974; Raelin 1986). Despite those persuasive arguments and observations, our meta-analysis found that professionalism (adherence to professional values and standards) did not affect withdrawal ( $r = -.01$ ). Quite likely, unrepresentative sampling accounts for this null finding, and absence of moderators. All the studies on the relationship between professionalism and turnover were carried out in hospital settings. Because hospitals, especially teaching hospitals affiliated with medical schools, are devoted to patient care, the personnel may face little conflict between their professional standards and practices of the hospitals. In other organizations that value efficiency and bureaucratic control over professional norms, professionalism may influence turnover. The extent to which employers adhere to the professional values and standards of the employees may in part determine whether or not professionalism induces people to seek other jobs.

**Managerial motivation.** Managerial orientation—or a drive to manage people—slowed the exodus from organizations ( $r = -.15$ ; see Butler, Laurent, and Miner 1983). Notwithstanding the absence of moderators, this

**Table 3-4 External Environment Factors**

PREDICTOR	<i>k</i>	<i>N</i>	Mean <i>r</i> ( $\bar{r}_{obs}$ )	Corrected Mean <i>r</i> ( $\bar{r}_{cor}$ )	Corrected Variance ( $V_{pop}$ )	Percentage Artifactual Variance	95% Credibility Interval	$\chi^2$
<b>Alternative Employment</b>								
Attraction and availability	27	10,447	.10	.11	.0084	28.48	-.07 to .29	96.01*
Comparison of alternatives to present job	7	1,635	.24	.26	.0092	33.44	.08 to .45	21.47*

Note. *k* = the number of samples; *N* = the number of employees.

Mean *r* = average correlation across all studies (weighted by their sample size); corrected mean *r* = average correlation across all studies which has been corrected for measurement errors; corrected variance = variance of corrected correlations across studies; percentage artifactual variance = degree to which statistical artifacts explain variance in observed correlations; 95% credibility interval = interval around the mean corrected correlation which comprises 95 percent of corrected correlations; and  $\chi^2$  = chi-square test of whether between-study variance in observed correlations is entirely due to sampling error.

\**p* < .05.

Source: Authors' calculations.

negative correlation may likely vary across occupations. The subjects of all the existing investigations of how managerial orientation deters exits have been military officers. Managerial orientation does persuade people in leadership positions to stay, but the personality trait may not similarly affect those in other jobs.

### ***External Environment***

***Alternative employment.*** Organizational scientists and labor economists universally proclaim that employment opportunities stimulate job changes (Forrest, Cummings, and Johnson 1977; Gerhart 1990; Mobley 1977; Mobley et al. 1979; Price and Mueller 1986). Data showing that the perceived attraction and availability of other jobs only modestly encouraged individuals to quit ( $r = .11$ ), a finding that approximates Steel and Griffeth's (1989) estimated .13 correlation, are shown in Table 3-4. This modest effect deviates from the findings of labor economists that there are strong relations between unemployment rates and quit rates (Mobley 1982a; Hulin, Roznowski, and Hachiya 1985) and illustrates the fact that relationships can change across different levels of aggregation (Rousseau 1985).

In a critique, Steel and Griffeth (1989) speculated that several methodological factors may explain why perceived alternatives (PA) modestly impact resignations. For one, most of the studies on PA effects drew samples from one organization, one industry, one region, one occupation, and one time period. Such homogeneous sampling may restrict the variance of the PA measures, attenuating their effects on turnover. By contrast, the studies of labor economists sample broadly across various occupational and geographic lines, contributing variance to aggregate indices of employment opportunity.



**Table 3-5 Withdrawal Cognitions**

PREDICTOR	<i>k</i>	<i>N</i>	Mean <i>r</i> ( $\bar{r}_{obs}$ )	Corrected Mean <i>r</i> ( $\bar{r}_{cor}$ )	Corrected Variance ( $V_{pop}$ )	Percentage Artifactual Variance	95% Credibility Interval	$\chi^2$
Search intentions	24	6,601	.25	.27	.0064	36.00	.12 to .43	66.69*
Quit intentions	70	78,078	.31	.35	.0266	4.81	.03 to .67	2173.10*
Thoughts of quitting	17	5,007	.25	.27	.0203	15.00	-.01 to .55	111.39*
Withdrawal cognitions	4	486	.28	.30	.0022	78.26	.21 to .39	5.12
Probability of finding another alternative	17	5,007	.12	.14	.0026	64.34	.04 to .24	26.42*
Expected utility of alternative	4	2,276	-.01	-.01	.0215	9.51	-.29 to .28	42.08*
Expected utility of present job	4	2,276	.23	.25	.0022	47.03	.16 to .34	8.51*
Expected utility of search	6	1,175	.21	.22	.0072	42.65	.05 to .38	14.19*
Expected utility of quitting	7	1,349	.23	.25	.0000	100.00	.25 to .25	5.62
Organizational commitment	36	13,085	-.17	-.18	.0063	32.22	-.33 to -.03	111.73*

Note. *k* = the number of samples; *N* = the number of employees.

Mean *r* = average correlation across all studies (weighted by their sample size); corrected mean *r* = average correlation across all studies which has been corrected for measurement errors; corrected variance = variance of corrected correlations across studies; percentage artifactual variance = degree to which statistical artifacts explain variance in observed correlations; 95% credibility interval = interval around the mean corrected correlation which comprises 95 percent of corrected correlations; and  $\chi^2$  = chi-square test of whether between-study variance in observed correlations is entirely due to sampling error.

\**p* < .05.

Source: Authors' calculations.

In a similar vein, extreme turnover base rates (ordinarily low quit rates) in most studies possibly constrained turnover variance, weakening the relationship between PA and turnover. Although pervading most research, extreme turnover rates may be most problematic in the PA literature where homogeneous occupational sampling *and* low quit base rates restrict the range of both the predictor and the criterion. In such circumstances, the attenuation bias on variable correlations is multiplicative rather than additive. Poor instrumentation may partly underlie the modest correlations between PA and quits (Steel and Griffeth 1989). That is, most investigations used global, one-item PA ratings to assess a complex multifaceted construct (see Mobley et al., 1979). Quite possibly, deficient and unreliable PA scales also underestimate the observed effects of employment alternatives on quits.

### Variables of the Withdrawal Process

**Withdrawal cognitions.** A fundamental tenet of modern thought on turnover is that decisions to withdraw from the work place best portend subsequent withdrawal (Hulin, Roznowski and Hachiya 1985; Mobley et al., 1979; Price and Mueller 1986; Rusbult and Farrell 1983; Steers and Mowday 1981). This

**Table 3-6 Other Withdrawal Behaviors**

PREDICTOR	<i>k</i>	<i>N</i>	Mean <i>r</i> ( $\bar{r}_{obs}$ )	Corrected Mean <i>r</i> ( $\bar{r}_{cor}$ )	Corrected Variance ( $V_{pop}$ )	Percentage Artificial Variance	95% Credibility Interval	$\chi^2$
Lateness	2	413	.14	.15	.0000	100.00	.15 to .15	.00
Absenteeism	28	4,371	.24	.33	.0079	56.67	.15 to .50	49.41*
Performance	56	15,318	-.16	-.19	.0036	11.87	-.57 to .19	471.97*

Note. *k* = the number of samples; *N* = the number of employees.

Mean *r* = average correlation across all studies (weighted by their sample size); corrected mean *r* = average correlation across all studies which has been corrected for measurement errors; corrected variance = variance of corrected correlations across studies; percentage artifactual variance = degree to which statistical artifacts explain variance in observed correlations; 95% credibility interval = interval around the mean corrected correlation which comprises 95 percent of corrected correlations; and  $\chi^2$  = chi-square test of whether between-study variance in observed correlations is entirely due to sampling error.

\* $p < .05$ .

Source. Authors' calculations.

supposition is corroborated by the data in Table 3-5, which reveals that intentions to seek alternatives or to quit best predicted actual departures (see Steel and Ovalle 1984). Similarly, a commitment to the organization, whose indices routinely tap propensity to withdraw from the job, foreshadowed employment changes (see Mathieu and Zajac 1990; Mowday, Porter, and Steers 1982). Although they did verify the predictive superiority of cognitions about job withdrawal, our meta-analysis surely underestimated their efficacy for predicting turnover in including studies that assessed quits long after the cognitions were surveyed and studies that comprised few leavers (Hom, Caranikas-Walker, Prussia, and Griffeth 1992). As noted earlier, lengthy time spans between measurements of the decision to withdraw and the action of withdrawing weaken the association between the two elements, as do extreme quit base rates, which attenuate variance in turnover (Carsten and Spector 1987; Steel and Ovalle 1984; Steel and Griffeth 1989). The inclusion of such studies in a meta-analysis doubtlessly understated the predictive accuracy of withdrawal cognitions under more favorable conditions of short time lags and near-50 percent quit rates. Indeed, tests of moderators found large nonartifactual variations between studies and wide credibility intervals for most cognitions, suggesting that closer agreement between withdrawal cognitions and quitting may occur in certain circumstances.

**Expected utilities of withdrawal acts.** Consistent with leading social psychological models (Ajzen 1991; Bagozzi and Warshaw 1990; Fishbein and Ajzen 1975; Triandis 1979), our meta-analysis showed that terminations emerge from conscious calculations of perceived costs and benefits. Rather than quitting impulsively over poor work conditions, many employees formulate decisions to withdraw after considering the possible results. Therefore, they would desert their work place if they believe that job seeking or quitting will be beneficial (if for instance, they could then obtain a better job elsewhere),

and if they believe that they can avoid or minimize negative repercussions, such as that of losing a sizable investment in the job.

### Other Withdrawal Behaviors

Other forms of withdrawal from the work place—notably, absenteeism ( $r = .33$ ) and lateness ( $r = .15$ )—that forecast turnover later are shown in Table 3-6. The positive relationship between absence and quitting accords with Mitra, Jenkins, and Gupta's recent meta-analysis (1992). These same researchers found that the duration of a study moderates the correlation between absence and turnover. There is a stronger covariation in short studies that last 12 months or less. They also reported that this relationship is moderated by the type of industry: Stronger associations are to be found in manufacturing settings than in nonmanufacturing settings.

Such positive covariation between milder forms of work avoidance and quitting—the most extreme and irrevocable form of withdrawal—is consistent with a progression-of-withdrawal model (Hulin 1991; Rossé and Miller 1984), that posits dissatisfied employees progressively enacting more extreme manifestations of job withdrawal over time (see Rosse 1988).

We include performance as an act of withdrawal because many theorists submit that passive job behavior reflects dissatisfaction and thus foreshadows quitting (Brayfield and Crockett 1955; Hulin 1991; Mobley 1977; Steers and Mowday 1981; Vroom 1964). Our meta-analysis results reveal a modest negative relationship between job performance and turnover ( $r = -.19$ ), which accords with Williams and Livingstone's recent meta-analysis (1994). This inverse correlation between performance and departure contradicts conventional views that more capable personnel resign—presumably because they have more employment options (see Jackofsky 1984). Nonetheless, tests of moderators suggest that positive correlations between performance and quitting may sometimes emerge (McEvoy and Cascio 1987). Allison (1974) and Schwab (1991) found that productive scholars left research universities more often than less accomplished academicians did.

Rewards that are tied to job effectiveness may moderate relationships between job performance and quitting (Williams and Livingstone 1994). In organizations where rewards were contingent on performance, the better performers (who therefore receive more rewards) would be more satisfied with their jobs and be less likely to quit. Marginal performers in these organizations would receive fewer benefits, become less satisfied with their jobs, and therefore more likely quit. Williams and Livingstone's meta-analysis did, in fact, find that contingent reward systems strengthened negative correlations between performance and turnover.

### CONCLUDING REMARKS

These meta-analytical findings carry significant theoretical and practical implications. First, the findings suggest which managerial interventions may be likely to control voluntary quits, a subject addressed in later chapters.

They provide a stronger empirical foundation for prescriptions than do anecdotal evidence or speculation, the prime basis for popular advice. These results also identify robust causal antecedents that any viable model of turnover must incorporate. All the same, we caution that our meta-analyses uncovered limits to our generalizations about the causes of turnover. Many moderator tests indicate that effects of these determinants of turnover, and the direction of those effects, vary across situations and populations. Such persistent evidence of inconsistency suggests that greater theoretical attention might be paid to moderators. All too often, theorists on turnover overstate the generality of their formulations by ignoring boundary conditions. Our meta-analysis also omitted other influential antecedents too rarely examined to be included in a meta-analysis. At the very least, this meta-analysis did call attention to this oversight. Last, even though meta-analysis is, arguably, the most significant methodological breakthrough in the organizational sciences, we must bear in mind the familiar adage, "garbage in, garbage out." After all, it is the quality of empirical studies that determines the validity of conclusions drawn from a meta-analysis.

# THEORIES OF EMPLOYEE TURNOVER

During the past twenty years, turnover researchers have devoted considerable attention to the reasons employees quit jobs. The low turnover predictions by traditional empirical work partly inspired this contemporary theoretical orientation (Locke 1976; Mobley 1977). In this chapter, we review modern conceptual developments, describing and evaluating various theoretical frameworks for understanding turnover. Although turnover has been researched since the turn of the century, March and Simon (1958) pioneered the first formal theory, proposing an *explicit, formal, and systematic* conceptual analysis of the withdrawal process.

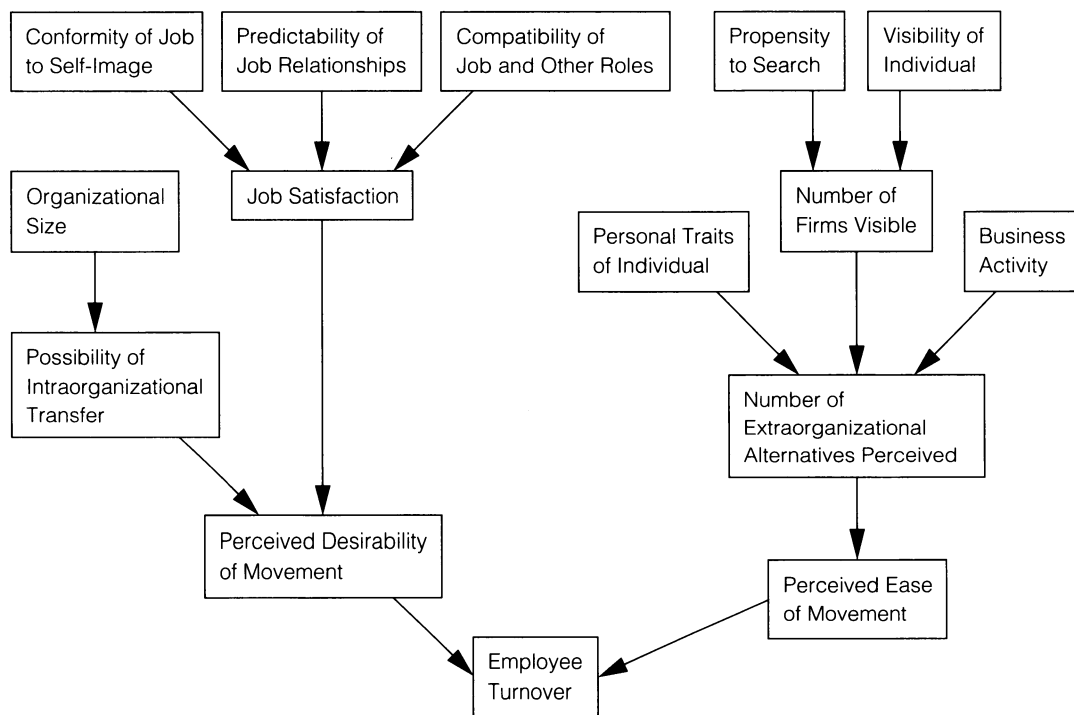
## MARCH AND SIMON: THEORY OF ORGANIZATIONAL EQUILIBRIUM

In *Organizations*, March and Simon (1958) introduced a general theory of motivation called *organizational equilibrium* (Barnard 1938; Simon 1947), which describes the organization's ability to pay members to motivate them to continue their participation. Each member participates so long as the inducements, such as pay, that are offered match or exceed (measured in terms of the member's values and available alternatives) the member's contributions. Each individual receives a set of inducements from an organization, with each inducement having a separate utility value. In return, the member contributes work, called "contributions," to the organization. Each contribution has its own utility, which is the value of the alternative that an individual forgoes to make the contribution. Both the individual and organization strive for an equilibrium state between inducements and contributions. The ensuing equilibrium assures survival of an organization.

Increases in the balance of inducement utilities over contribution utilities reduce the propensity of the member to leave the organization; decreases in that balance enhance the propensity. The balance between inducements and contributions is a function of two distinct, but interdependent, motivational components: the perceived desirability and the perceived ease of leaving the organization. The root causes of these direct determinants of withdrawal from organizations are portrayed in Figure 4-1.

### Perceived Desirability of Movement

The primary influencing factor is the individual's satisfaction with the job. That is, job satisfaction reduces perceived desirability of movement.



**Figure 4-1 March and Simon's Model of Motivation.** (Adapted from J. G. March and H. A. Simon, *Organizations*. New York: Wiley, (1958): 99, 106.)

March and Simon identified three sources of job satisfaction. First, conformity of job characteristics to self-image enhances job satisfaction: "Dissatisfaction arises from a disparity between reality and the ego-ideal held by the individual. The greater the disparity, the more pronounced the desire to escape from the situation" (1958, p. 94). Relevant dimensions of self-image—namely, self-evaluations of independence, worth, and competencies or interests—are then satisfied (or frustrated) by supervisory practices, wages, participation in job assignments, and educational level. Besides a fit between person and job, predictability in instrumental relationships on the job and compatibility of work requirements with other role requirements promote job satisfaction. Interrole compatibility in turn depends on congruency of work-time patterns with those of other roles and work-group size.

Apart from job satisfaction, organizational size shapes the desirability of moving. The "larger the organization, the greater the perceived possibility or organizational transfer, and therefore, the less the perceived desirability of leaving the organization" (*ibid.*, p. 99). Paradoxically, organizational size may *increase* desirability of movement because organizational and other roles become less compatible in larger firms (creating more dissatisfaction).

### Perceived Ease of Movement

Drawing from the well-established tenet that “under nearly all conditions the most accurate single predictor of labor turnover is the state of the economy,” March and Simon specified antecedents of perceived ease of movement (*ibid.*, p. 100). They proposed that plentiful extraorganizational alternatives enhance perceived ease of movement. In turn, business activity and personal attributes determine an individual’s available extraorganizational alternatives. In particular, young, male, high-status, or short-tenure employees perceive that they have greater ease of movement.

March and Simon further conceptualized that the number of visible firms increases the number of perceived extraorganizational alternatives. In turn, the company’s prestige, the size of the organization, the production of a well-known product, the number of high-status occupations and employees, and rapid growth determine the visibility of the firm. In addition, the individual’s residence and number of outside organizations to which she belongs increase her personal contacts, which expand the number of visible firms.

Because companies also scan people, an individual’s visibility increases the number of visible organizations (who would seek to employ her). Such visibility among individuals may depend on the heterogeneity of personal contacts, high social status, and individual uniqueness. March and Simon posited that the individual’s propensity to search them out boosts the number of visible companies. Job satisfaction and habituation in turn shape the propensity to search. “Dissatisfaction makes movement more desirable and also (by stimulating search) makes it appear more feasible” (*ibid.*, p. 105). By contrast, habituation to a particular job, which mounts with age and job tenure, diminishes the propensity to search.

### Review

Although few studies *directly* tested March and Simon’s model (cf. Mobley 1982a), their conceptualization nonetheless influenced successive generations of theorists. Their seminal work shaped much prevailing contemporary thinking about turnover, including that of Hulin, Roznowski, and Hachiya (1985), Lee and Mitchell (1994), Mobley (1977), and Steers and Mowday (1981). More directly, Jackofsky and her colleagues (1984; Jackofsky and Slocum 1987) incorporated March and Simon’s constructs of desirability and ease of movement into a model relating job performance to turnover. This persistent influence over thirty years illustrates the durability of March and Simon’s explanatory scheme.

### PORTER AND STEERS: MET-EXPECTATION MODEL

Many years elapsed before a new theory emerged. In 1973, Porter and Steers posited that met expectations were the central determinant of deci-

sions about turnover. They argued that, although most employees value pay, promotions, supervisory relations, and peer-group interactions, individuals have distinctive sets of expectations. If an organization fails to meet an individual's set of expectations, dissatisfaction will result, and the probability of withdrawal increase. They view this "as a process of balancing perceived or potential rewards with desired expectations" (1973, p. 171).

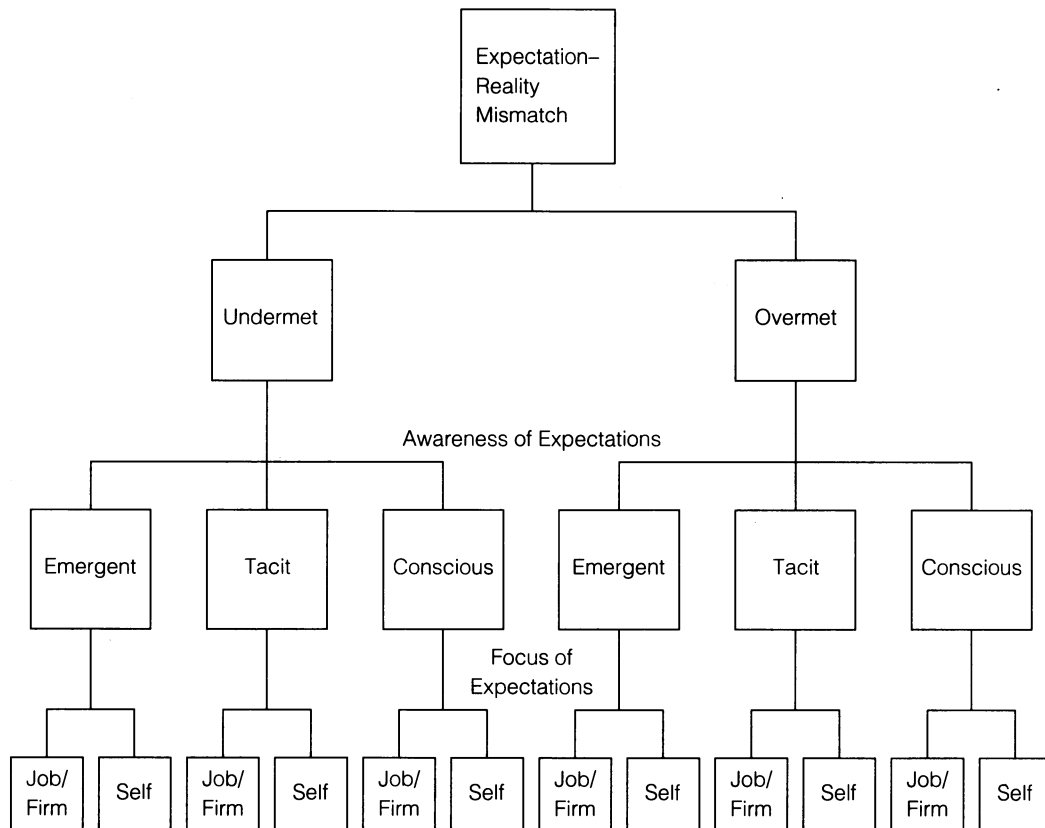
More specifically, Porter and Steers suggested that expectations of work rewards are fluid from the beginning of employment to some later period when the individual decides to stay or leave. Two new employees, holding similar job expectations at the outset, may later find their expectations fulfilled in different ways. One employee's expected rewards may be met or exceeded by the job, resulting in satisfaction and participation; the other may discover that the job does not confirm her expectations, inducing dissatisfaction and withdrawal. To summarize, Porter and Steers posited a causal sequence, wherein unmet expectations → job dissatisfaction → turnover.

### Review

Porter and Steers's model represents a pivotal theoretical advancement in turnover research. They introduced a parsimonious, integrative construct—namely, met expectations—that summarizes the effects of myriad work-related determinants on turnover (via reward experiences) and acknowledges the existence of personal attributes, which underpin expectation levels. In line with their view, a recent meta-analysis (Wanous, et al., 1992) found that met expectations correlated most closely with job attitudes then with intentions to quit and, last, with turnover. What is more, their model became the dominant explanation for why realistic job previews (RJP) work (Datel and Lifrak 1969; Wanous 1973; Youngberg 1963). RJP's communicate positive and negative features of a job to new employees, and such communication bolsters tenure in the job (Premack and Wanous 1985; Wanous 1992). Supporting the Porter-Steers formulation, various studies have confirmed that RJP's reduce turnover by deflating initial expectations, leading to higher fulfillment of expectations on the job (Premack and Wanous 1985; Hom, Griffeth, Palich, and Bracker 1993).

Some issues continue, however, to elude scholarly scrutiny. One involves the met-expectations concept itself. In its present form, this concept may be too simplistic (Ilgen and Dugoni 1977). According to Festinger (1947), cognitive dissonance occurs when initial expectations are not consistent with later experience. Dissatisfaction results. Dissonance is aroused regardless of whether the disconfirming experience is positive or negative. Dissonance theory predicts dissatisfaction when expectations are unmet or are exceeded and satisfaction when expectations are met. Thus, dissonance theory predicts a quadratic relationship between met expectations and job satisfaction. In contrast, Porter and Steers (1973) hypothesized that most dissatisfaction would arise when expectations are unmet and would decline





**Figure 4-2 Louis' Taxonomy of Unmet Expectations.** (M. R. Louis, "Surprise and sense making—what newcomers experience in entering unfamiliar organizational settings," *Administrative Science Quarterly* 25 (1980): 237.)

(linearly or monotonically) as expectations are met or exceeded. Griffeth (1981) tested these two competing predictions and found stronger support for a curvilinear relationship between dissatisfaction and met expectations.

Louis (1980) further argued that the Porter-Steers notion fails to differentiate between initial expectations that are not fulfilled by the job ("unmet") and those that are surpassed ("overmet"). She reasoned that overmet expectations produce surprise rather than dissatisfaction. She also criticized the Porter-Steers viewpoint as simplistically presuming that all preentry expectations are conscious, clearly defined, and refer to qualities of the job. To overcome the concept's limitations, she introduced a comprehensive taxonomy of different types of unmet expectations based on three dimensions (see Figure 4-2). Besides the direction of the mismatch between expectation and reality, she suggested that expectation has a focus (initial

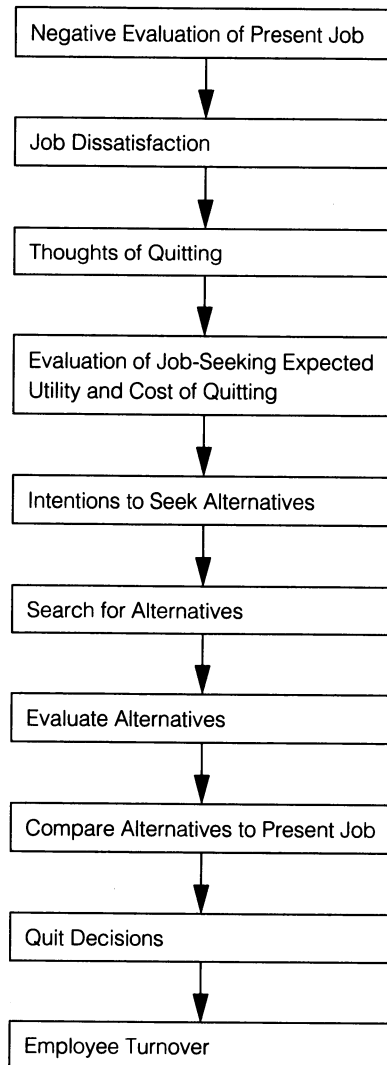
expectations can refer to the self or job) and that there is a level of awareness about expectation (expectations may be conscious or preconscious).

To illustrate awareness in expectation, she discussed possible disconfirmation of unconscious job expectations, such as unexpected features of the job, and quoted a newcomer who said, "I had no idea how important windows were to me until I'd spent a week in a staff room without any" (1980, p. 238). To illustrate expectation focus, Louis mentioned that newcomers may harbor mistaken assumptions about their proficiency ("I'm less competent on this job than I expected to be") or attitudes ("I knew I would put in lots of overtime but I did not expect that sixty-five-hour weeks would be so grueling"). Louis's taxonomy holds great promise for understanding how unmet expectations affect turnover and awaits future validation. Her conceptualization may clarify how RJPs improve job survival because RJPs may also establish entry expectations for the job and the worker, besides promoting met expectations (see Meglino, DeNisi, Youngblood, and Williams 1988).

Though Porter and Steers (1973) acknowledged that unmet expectations do not invariably evoke quits, they did not state why this occurs. Conceivably, some disappointed newcomers do not withdraw because they lack viable alternatives to the present job (Wanous 1973). Thus, Porter and Steers omitted a key moderator of the unmet expectations → turnover pathway: perceived alternatives. Further, they prescribed use of RJPs to deflate newcomers' expectations so that the existing job might more easily fulfill their expectations and improve the chances of their staying on the job. An *increase* in initial job expectations may, however, benefit new entrants to certain occupations. Meglino et al. (1988) showed that an "enhancement" RJP promotes recruits' survival in the Army by reversing overly pessimistic expectations about their ability to complete basic training. Porter and Steers (1973) nevertheless recognized that more theoretical work must examine the psychology of the decisional processes underlying turnover. This call was soon answered by Mobley.

### **MOBLEY: TURNOVER PROCESS MODEL**

In response to Locke's observation (1976) that the relationship between satisfaction and turnover have rarely exceeded .40, Mobley (1977) envisioned a series of intermediate linkages between evaluation of the present job—the result of which is satisfaction or dissatisfaction—and turnover. This decisional sequence is illustrated in Figure 4-3. Job dissatisfaction stimulates thoughts of quitting, which elicit assessments of the utility of seeking other employment (for instance, the chances of finding comparable work) and turnover costs (among them, the loss of unvested pension benefits). If the exit will not be costly, the expectation that it would be beneficial to seek another job will induce intentions of making a search and, thereafter, searching. After finding alternatives, dissatisfied employees will evaluate them and compare them with the present job. When the alternatives are found to be the more attractive, the disparity motivates the employee to quit.



**Figure 4-3 Mobley's Intermediate Linkages Model of Turnover.** (Adapted from W. H. Mobley, "Intermediate linkages in the relationship between job satisfaction and employee turnover," *Journal of Applied Psychology* 62 (1977): 238. Copyright 1977 by the American Psychological Association. Adapted by permission.)

### Review

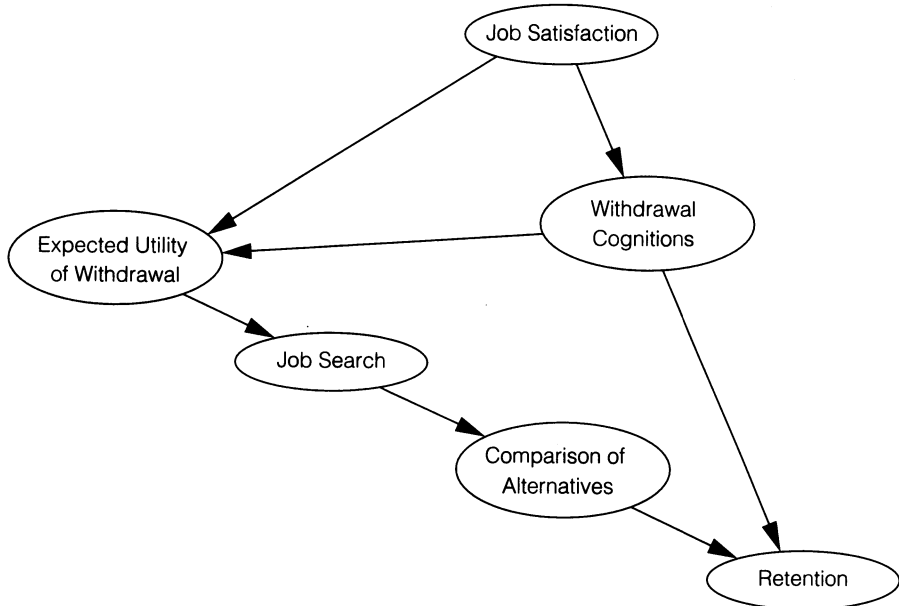
In the annals of turnover work, Mobley's theory has most furthered understanding of the withdrawal process and has drawn the most empirical scrutiny. Though March and Simon (1985) provided impetus for modern theory and research, Mobley's 1977 model dominates all work on psychological approaches to turnover. This model stimulated substantial investigations

on its validity and inspired subsequent theoretical elaborations or refinements. Some theorists (such as Mobley et al. 1979) expanded Mobley's model by introducing more distal determinants of the process from satisfaction to quitting. Others have restated or clarified this termination process (Steers and Mowday 1981). Still, other scholars have refined this model by reconfiguring intervening mechanisms that translate dissatisfaction (Hom and Griffeth 1991) yet others regard Mobley's withdrawal sequence as only one of multiple routes to turnover (Lee and Mitchell 1994). If they have not adopted the model in its entirety, other turnover theorists have nonetheless adopted one or more of the theoretical constructs Mobley pioneered—notably, withdrawal intentions (Price and Mueller 1986) and perceived alternatives (Hulin, Roznowski, and Hachiya 1985; Rusbult and Farrell 1983). In one form or another, Mobley's conceptualization continues to infuse present-day thinking about organizational withdrawal. All told, Mobley's theory is unmatched in its far-reaching and enduring influence.

Early investigations tested an abbreviated version of Mobley's model that Mobley, Horner, and Hollingsworth (1978) had proposed (Coverdale and Terborg 1980; Miller, Katerberg, and Hulin 1979; Mowday, Koberg, and McArthur 1984; Peters, Jackofsky, and Salter 1981; Spencer, Steers, and Mowday 1983). While generally supported (Hom, Caranikis-Walker, Prussia, and Griffeth 1992), tests of the abbreviated 1978 model do not directly substantiate the earlier more elaborate model (Hom, Griffeth, and Sellaro 1984). Though surprisingly scant, the few complete tests of the original 1977 formulation have consistently disputed several model pathways, although upholding most pathways (Griffeth and Hom 1983; Hom, Griffeth and Sellaro 1984; Laker 1991; Lee 1988; Steel, Lounsbury, and Horst 1981). These mixed findings prompted the development of a growing number of alternative structural networks linking Mobley's constructs that secured stronger corroboration than Mobley's original structure (Blau 1993; Hom and Griffeth 1991; Hom, Griffeth, and Sellaro 1984; Hom, Caranikas-Walker, Prussia and Griffeth 1992; Jaros et al. 1993; Sager, Griffeth, and Hom 1992).

### **HOM AND GRIFFETH: REVISED INTERMEDIATE-PROCESSES MODEL**

Responding to growing challenges to Mobley's structural relations (Hom, Griffeth, and Sellaro 1984; Lee 1988; Steel, Lounsbury, and Horst 1981), Hom, Griffeth, and Sellaro (1984) proposed an alternative network, illustrated in Figure 4.4. They suggested that dissatisfaction evokes thoughts of quitting, which in turn, stimulate decisions to quit and an evaluation of the expected costs and benefits of search and quitting. At this juncture, employees follow one of two paths. Some employees who perceive that alternatives are available undertake a job search. They then compare the alternatives with their present job and, when the alternatives are better, they quit. Other employees, who may expect to find another job easily or who may pursue alternatives



**Figure 4-4 Hom and Griffeth’s Alternative Linkage Model of Turnover.** (P. Hom and R. Griffeth “Structural equations modeling test of a turnover theory,” *Journal of Applied Psychology* 76: (1991): 357. Copyright 1991 by the American Psychological Association. Adapted by permission.)

other than work—simply resign after deciding to quit. The path analytical test by Hom, Griffeth, and Sellaro (1984) supported this causal structure better than Mobley’s original model. Nonetheless, several model pathways were empirically derived rather than theorized *a priori* (James, Mulaik, and Brett 1982) and Hom, Griffeth and Sellaro measured employees’ generalized impressions of alternative work rather than their perceptions of specific jobs.

Afterward, Hom and Griffeth (1991) attempted to cross-validate the structural alternative proposed by Hom et al. (1984) in two nursing samples, using structural equations modeling (SEM) and more precise measures of specific job offers. In study 1, they investigated the dimensionality of model constructs. Discriminating most constructs, SEM analysis identified, however, a global construct underlying thoughts of quitting, search intentions, and quit decisions. After reconceptualizing withdrawal intentions as different facets of the same construct, Hom and Griffeth supported the structural model shown in Figure 4-4. In study 2, surveying new nurses on three occasions, the researchers tested causal priorities among model variables more rigorously. By and large, this SEM analysis supported the theorized causal directions and demonstrated that some causal effects occur instantaneously and others transpire over time. Moreover, causal effects systematically changed during the assimilation of a newcomer into an organization.

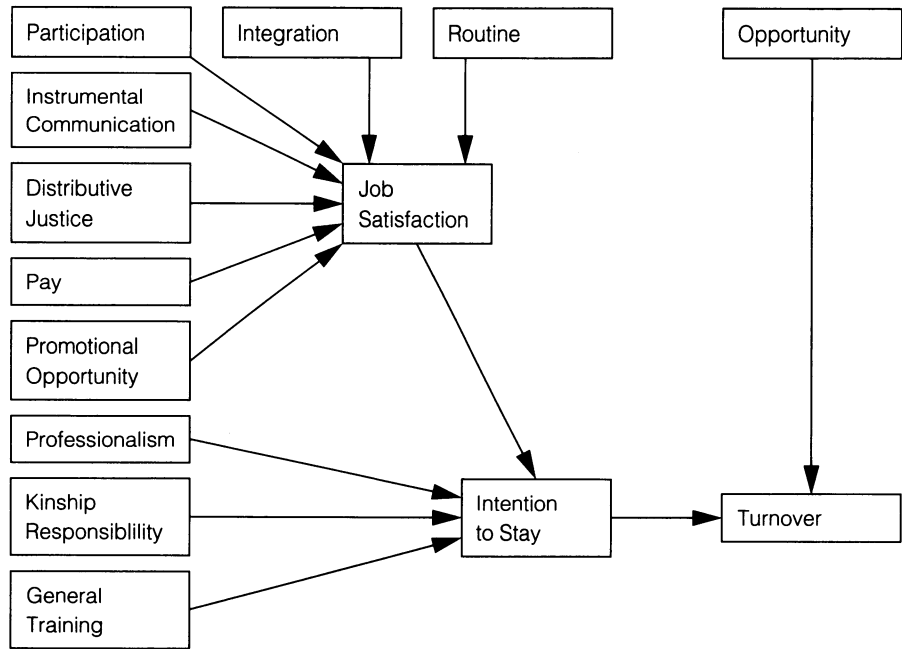
Though their validation is encouraging, Hom and Griffeth's revision of Mobley's withdrawal stages requires further corroboration. Jaros et al. (1993) and Hom, Kinicki, and Domm (1989) similarly verified a global withdrawal cognition, but Sager et al. (1992) upheld a multidimensional conceptualization. The theoretical model merits substantiation in samples of other workers, who may withdraw from organizations for different reasons than nurses do (Hom et al. 1992). More contemporary formulations suggest that Mobley's (and Hom and Griffeth's [1991]) depiction of intervening mechanisms between dissatisfaction and turnover is incomplete. Ironically, Mobley and his colleagues (Mobley et al. 1979; Mobley 1982a) theorized that the attraction of the job—or future improvements in the work role or future attainment of other desirable work roles within the company—may interrupt the translation of dissatisfaction into departure: Dissatisfied employees may decide *not* to leave if they foresee improvements in the job. Similarly, Hulin, Roznowski, and Hackiya (1985) and Steers and Mowday (1981) argued that an alternative reaction to dissatisfaction besides (or before) departure is to improve the workplace—either by eliminating the frustrations of the job or by moving to other positions in the organization. Future investigators might elaborate on the Hom-Griffeth model by introducing other variables that mediate the impact of dissatisfaction on exits.

### **PRICE: STRUCTURAL MODEL**

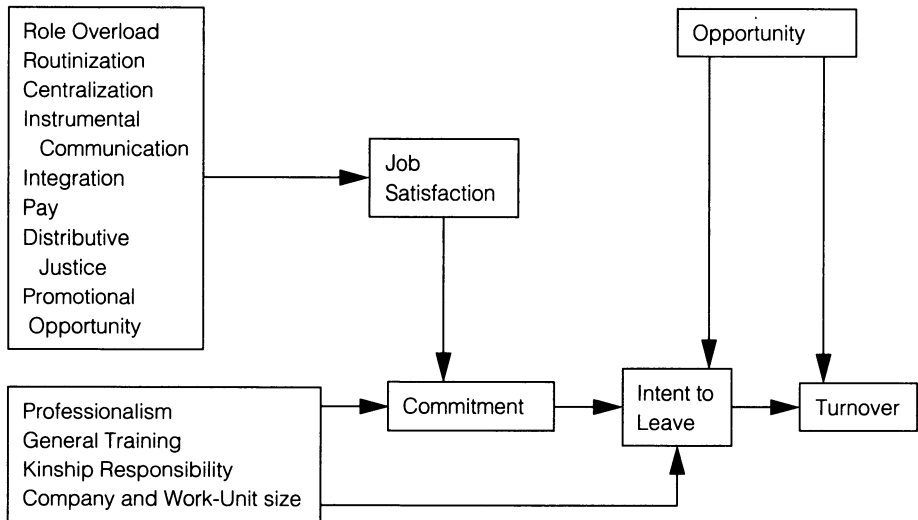
In a comprehensive review of the literature, the sociologist, James Price, developed a model that integrated past findings about turnover (1977). He theorized that pay, integration, instrumental communication, formal communication, and centralization shape job satisfaction, which influences turnover. Further, opportunity—or the availability of alternative employment—moderates the relationship between satisfaction and turnover. Trial evaluations of this early model subsequently inspired a more comprehensive theory (Bluedorn 1982; Price and Bluedorn 1979; Martin 1979).

Expanding Price's 1977 model, Price and Mueller (1981) proposed that repetitive work reduces satisfaction and that workers who are participating in job-related decisions, receiving work-related information, forming close friendships with others at work, earning good and fair compensation, and enjoying opportunities for promotion are more likely to be satisfied (see Figure 4-5). Job satisfaction, in turn, increases intentions of staying, whereas professionalism, generalized training, and minimal kinship responsibility weaken these intentions. Together, intentions to stay and opportunities for employment elsewhere determine turnover.

Subsequently, Price and Mueller published, in 1986, a revision of their 1981 version. They introduced two antecedents to satisfaction, role overload and family pay, and another determinant of decisions to quit (and, thus, of commitment to the organization), the size of the company and work groups in it. They renamed participation to reflect centralization (the concentration of



**Figure 4-5 Price and Mueller's 1981 Model of Turnover.** (Adapted from J. Price and C. Mueller, "A causal model of turnover for nurses," *Academy of Management Journal* 24 (1981): 547.)



**Figure 4-6 Price and Mueller's 1986 Model of Turnover.** (Adapted from J. Price and C. Mueller, *Absenteeism and turnover of hospital employees*, Greenwich, Conn.: JAI Press (1986): 10.)

power) and interposed commitment to the organization between job satisfaction and intentions to quit. Their theoretical version is illustrated in Figure 4-6.

## Review

Price's theorizing and research represent landmark contributions to research into turnover. Unlike more speculative theorists, he identified in 1977 a comprehensive set of determinants of turnover that was based on a systematic and broad review of the literature of research in labor economics, sociology, and psychology. Thus, his causal determinants are empirically well grounded (based on consistent empirical findings) and include explanatory constructs historically overlooked by organizational researchers. In particular, Price introduced the notions of kinship responsibilities, professionalism, and economic opportunity, which eventually entered the mainstream of modern thought about withdrawal (see Gerhart 1990; Hulin, Roznowski, and Hachiya 1985; Rusbult and Farrell 1983; Steers and Mowday 1981). Moreover, Price and Mueller's empirical investigations of their models (1981, 1986) became hallmarks of methodological rigor. They pioneered causal modeling techniques to assess structural networks, evaluating the nomological validity of a theory as well as its predictive validity, the customary preoccupation. They carefully constructed scales to assess model constructs validly and reliably. For example, they factor analyzed items reflecting the same construct and created reliable factor-based scales of items with high factor loadings (average .75 reliability). Such painstaking validation stands in marked contrast to traditional ad hoc operationalizations and provided psychometrically sound scales for investigations into turnover.

Notwithstanding their rigorous methodology, Price and Mueller found that all the components of the 1981 model together explained only 18 percent of turnover's variance. Importantly, they partially verified theorized causal pathways. Although finding significant estimates for nearly 70 percent of predicted causal effects, their research failed to sustain other expected linkages in the model. Surprisingly, they uncovered significance for 20 percent of the pathways theorized to be absent. To improve predictions about turnover, they recommended that intentions to quit be replaced with commitment to the organization and they reconceptualized the meaning of distributive justice, professionalism, and integration. Even so, the revised (and expanded) 1986 model explained only 13 percent of turnover's variance. Here again, Price and Mueller (1986) partially supported their *a priori* causal structure. They obtained significant estimates for roughly 75 percent of theorized causal pathways, but rejected the remaining pathways. Importantly, approximately 40 percent of supposedly *null* pathways were estimated as statistically significant, which contradicted their theoretical predictions.

In summary, the few research studies of the Price-Mueller models partly affirmed their nomological networks. Besides this, a competitive two-sample test by Griffeth and Hom (1990) found that the Price-Mueller models provide less parsimonious explanations of turnover compared with Hom,



Griffeth, and Sellaro's (1984) variant of Mobley's (1977) model. Still, a joint model synthesizing promising concepts from Mobley's and Price and Mueller's models yielded excellent model fit and parsimony. A promising avenue for future inquiry might be the attempted integration between Price and Mueller's structural formulation and process-oriented models (such as those of Hom and Griffeth [1991], Lee and Mitchell [1994], and Steers and Mowday [1981], that explicate the translation of dissatisfaction into terminations. Future validations of the Price-Mueller theories (or their variants) should be performed on samples of workers other than nurses or hospital personnel, who comprise the validation samples for the original models and may follow a different process of withdrawal than would other members of the work force.

### **MOBLEY, GRIFFETH, HAND, AND MEGLINO: EXPANDED MODEL**

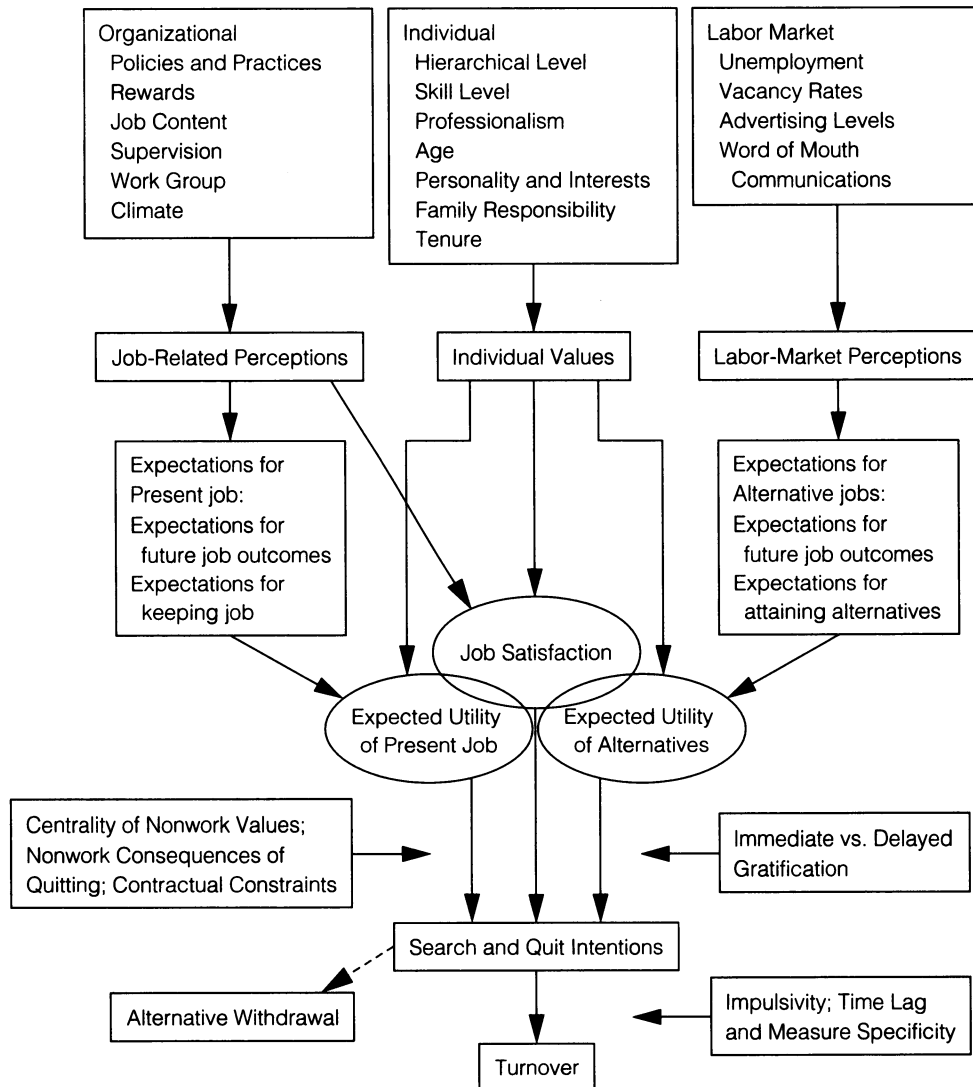
Since proposing the 1977 model, Mobley et al. (1979) reviewed the literature on turnover and organized its causes into a heuristic model reflecting many indirect and direct influences on the phenomenon (see Figure 4-7).

#### **Requisites for Intentions**

As in the earlier model, the researchers proposed quit intentions as the immediate precursor to turnover. They further conceived intentions (and turnover) as a function of (1) job satisfaction, (2) expected utility of the present work role, and (3) expected utility of alternative work roles.

**Job Satisfaction** They defined satisfaction as an affective response resulting from evaluation of the job. Drawing from Locke's theory (1969; 1976), they conceptualized that personal values and job-related perceptions shape job evaluation. Basically, job satisfaction derives from the extent to which an employee's important values are attained in the job (Mobley 1982a). Mobley et al. further theorized that satisfaction is present oriented and generates an approach or avoidance orientation toward the job. However, job dissatisfaction imperfectly foreshadows turnover, which also derives from the employee's expectations of conditions in the organization (Mobley 1982a).

**Expected Utility of the Present Role** Besides satisfaction, the "expected utility of the present role"—that is, an individual's "expectancies that the job will lead to the attainment of various positively or negatively valued outcomes" and expectancy of retaining the current job—also underpins decisions about turnover (Mobley et al. 1979, p. 518). Thus, an employee may not quit a dissatisfying job if she or he expects the job to lead to future better things, such



**Figure 4-7** Mobley, Griffeth, Hand, and Meglino's Expanded Model of Turnover. (Adapted from W. Mobley, R. Griffeth, H. Hand, and B. Meglino, "A review and conceptual analysis of the employee turnover process," *Psychological Bulletin*, 86 (1979): 517. Copyright 1979 by the American Psychological Association. Adapted by permission.)

as transfer to a better job, promotion, or an improvement in conditions in the organization (Mobley 1982a). The expected utility of the present job thus explains why job satisfaction imperfectly predicts terminations: Optimistic expectations about the job may prevent some dissatisfied

employees from leaving; pessimistic expectations about career prospects within the company may induce even satisfied employees to quit.

***Expected Utility of Alternative Roles*** Building on the work of March and Simon (1958), Forrest, Cummings, and Johnson (1977), and Schneider (1976), Mobley et al. posited the expected utility of external alternatives as a third determinant of intentions to withdraw. The expectancy that the alternatives will be better (and the expectancy of attaining those alternatives) also explains why job satisfaction imperfectly predicts turnover. The absence of attractive alternatives may discourage dissatisfied employees from resigning, whereas the availability of desirable employment elsewhere may motivate even satisfied employees to exit (Mobley et al. 1979; Mobley 1982a).

***Moderators and Distal Determinants*** Impulsive quitting, the centrality of non-work values, and a need for immediate gratification moderate the effects of job satisfaction and expected utilities on turnover. Mobley et al. (1979) suggested that employees who cannot secure attractive alternatives may engage in alternative forms of withdrawal, such as absences, accidents, and sabotage. Further, job satisfaction and expected role utilities in turn emanate from various determinants: organizational (for example, policies and practices), occupational (for example, skill level and status), personal (for example, tenure and education), and economic and labor market (for example, unemployment and vacancy rates) factors.

## Review

By emphasizing values, expectancies, job-related and external perceptions, and moderators, Mobley et al.'s conceptualization (1979) introduced a welcome multivariate explanation of the turnover process. Unlike Mobley's process-oriented formulation (1977), the later perspective sought to identify a comprehensive set of determinants of turnover and has been hailed by Muchinsky and Morrow as "well developed and highly articulated" (1980, p. 265). Borrowing from expectancy theory, Mobley et al. further popularized notions of the expected utility of the present role and the expected utility of alternatives, which explain why dissatisfied employees do not invariably quit their jobs: the possibility of attractive work roles in the future or the undesirability of external alternatives may discourage dissatisfied employees from severing their employment. Moreover, Mobley et al. emphasized the role of nonwork influences on withdrawal decisions, a concept that now pervades thinking on turnover (see Hom and Griffeth 1991; Hulin, Roznowski, and Hachiya 1985; Steers and Mowday 1981). Notwithstanding these contributions, this comprehensive framework left unspecified the relative impact of the three classes of distal antecedents on job-related perceptions, individual values, and perceptions of the labor market as well as overlooking causal interactions within and between classes of these antecedents.

Two research streams have tested the 1979 theory. Although the tests were not exhaustive, a number of researchers directly investigated portions of the theory: Griffeth and Hom (1988a), Michaels and Spector (1982), Motowidlo and Lawton (1984), and Youngblood, Mobley, and Meglino (1983). Other researchers, among them Arnold and Feldman (1982), and Hom, Griffeth, and Sellaro (1984), borrowed components of the model to validate a different theory. Both approaches affirmed that expected utilities of a work role can improve predictions of turnover decisions and behavior better than measures of job satisfaction can, although the results are neither consistent nor impressive (see Griffeth and Hom [1988a] and Youngblood, Mobley, and Meglino [1983]). Nevertheless, most investigations inadequately operationalized the expected utility of the present work role, emphasizing the present attainment rather than the *future* attainment of role outcomes (Hom, Kinicki, and Domm 1989). In a similar vein, existing studies imprecisely represented the expected utility of alternative jobs, typically measuring the attractiveness of some general alternative rather than considering specific job offers (Griffeth and Hom 1988a). Conceivably, better representations of the original notions of Mobley et al. may enhance the predictive power of the expected utilities of current and other work roles.

Beyond this, many of the model's propositions remain untested. For example, does failure to find attractive alternatives lead to alternative forms of withdrawal as Mobley et al. hypothesized (1979)? Or after failing to find an alternative, do employees reevaluate their present jobs more favorably? No study has attempted to operationalize the model fully. Admittedly, Mobley et al., in providing illustrative components rather than an exhaustive taxonomy, did not specify fully *all* the components of the three sets of distal organizational, individual, and labor-market causes.

### **MUCHINSKY AND MORROW: MULTIDISCIPLINARY MODEL**

Muchinsky and Morrow (1980) conceived economic determinants, such as employment rates and opportunity to obtain work, as immediate precursors of turnover. The rationale for direct employment effects is that most employees will not leave their present job unless alternative opportunities for employment exist. Individual and work-related factors then "flow" through economic opportunity, which acts as a valve to regulate their influence on turnover. That is, when jobs are plentiful, individual and work-related determinants affect turnover more than they do when few jobs exist. As a result, the relationship between job dissatisfaction and quits is stronger for employees that have alternative jobs than for those who do not. Without alternatives, dissatisfied employees are more likely to endure their present situation. Muchinsky and Morrow also acknowledged the likelihood of alternative forms of withdrawal, such as absenteeism or depressed productivity, if

employees cannot find more attractive alternatives and argued that individual and work-related factors interact.

### Review

Though Muchinsky and Morrow's model (1980) has rarely been tested, Carsten and Spector (1987) examined the thesis that employment moderates relationships between individual and work-related variables. Using meta-analysis, Carsten and Spector considered two correlates of turnover, satisfaction and intentions to quit, during periods of low and high unemployment. Muchinsky and Morrow hypothesized that the relationship would be strong during low unemployment and weak during high unemployment. Generally, the results supported their prediction, although correlations between job satisfaction and turnover ranged from  $-.18$  to  $-.52$ , depending upon whether unemployment rates were calculated at state or occupational levels. Relationships between intention and turnover were somewhat lower ( $-.28$  to  $-.36$ ).

Generalizing from these findings, other scholars substantiated the moderating effects of unemployment on relationships between perceived alternatives and quitting and on structural networks of the causes of turnover (Gerhart 1990; Steel and Griffeth 1989; Hom Caranikis-Walker, Prussia, and Griffeth 1992). These compelling results persuaded organizational psychologists to begin modeling the effects of unemployment rates on turnover among individuals (see Hom Caranikis-Walker, Prussia, and Griffeth 1992; Hulin, Roznowski and Hachiya 1985). Yet theoretical consideration of unemployment rates challenges the prevailing psychological models of turnover, which overlook macro-level determinants (Hom and Hulin 1981; Rousseau 1985).

Conceivably, the unemployment rate affects an individual's turnover because it is a crude proxy for various psychological forces, such as the crystallization of alternatives and the visibility of alternatives (Steel and Griffeth 1989). Additionally, rates of joblessness may indirectly ("spuriously") affect the withdrawal process by impacting the quit base rate (Hom and Hulin 1981). Essentially, high unemployment depresses turnover rates, thereby attenuating relationships between turnover and its antecedents (Steel and Griffeth 1989). Furthermore, high employment may encourage marginal drifters, whose decisions about changing jobs may not be regulated by the same process as those of regular, full-time workers, to join the work force (Hulin, Roznowski, and Hachiya 1985). Once they accumulate sufficient funds, they may simply resign and drop out of the labor market to pursue more "fulfilling" avocations. Therefore, the familiar bases of turnover, which underlie the quit decisions of regular employees, may scarcely determine those of peripheral workers who forsake even satisfying jobs.

Last, scant evidence supports other relationships among the variables, especially interactions, that were depicted in Muchinsky and Morrow's theory (1980). By deemphasizing the process underlying turnover, the Muchinsky

and Morrow model represents a content model that catalogues factors of turnover but omitted many essential process determinants, most notably, withdrawal cognitions. Obviously, more research is warranted to validate this model.

### FARRELL AND RUSBULT: INVESTMENT MODEL

Farrell and Rusbult (1981) derived a model from social exchange (Homans 1961) and interdependence theories (Thibaut and Kelley 1959; Kelley and Thibaut 1978). From these conceptualizations, they attempted to explain organizational commitment, which is “the binding of the individual to behavioral acts” (Kiesler and Sakumura 1966, p. 349). “Thus, job commitment is related to the probability that an employee will leave his job, and involves feelings of attachment, independent of affect. Job commitment reflects behavioral intention, primarily (but not solely) [the] degree of intention to stay with a job” (Farrell and Rusbult 1981, p. 79).

They proposed various antecedents of commitment, notably, job satisfaction ( $SAT_x$ ), which they defined as:

$$SAT_x = (R_x - C_x) - CL,$$

where  $R_x$  is the reward value of an association, defined by

$$R_x = E(w_i r_i),$$

where  $r_i$  is the individual's subjective estimate of the reward value of attribute  $i$  available from association  $X$  and  $w_i$  represents its subjective importance, and

$$C_x = E(w_j c_j),$$

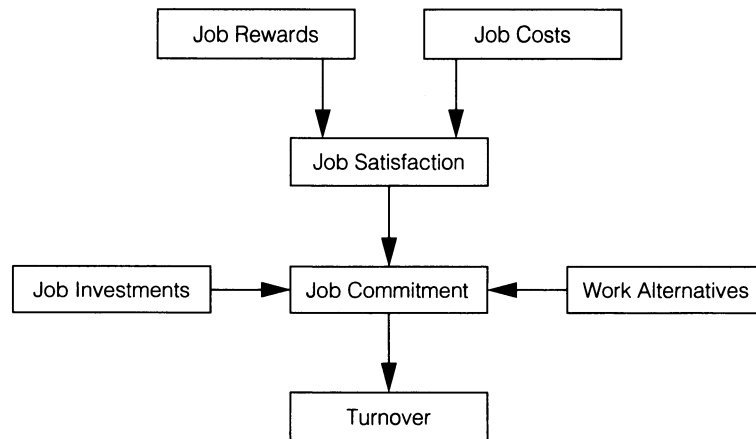
where  $c_j$  is the magnitude of the subjective costs of association  $X$  regarding attribute  $j$  and  $w_j$  is the importance of the attribute in the association.

$CL$  is the comparison level (Thibaut and Kelley 1959), or internal standard, that the employee has come to expect from associations. That is, “ $CL$  is a standard by which the person evaluates the rewards and costs of a given relationship in terms of what he feels he ‘deserves’” (Thibaut and Kelley 1959, p. 21). Presumably, job satisfaction arises from a comparison between the  $CL$  and the difference between job rewards and costs—called the association outcome value ( $O_x$ ).

Alternatives, however, undermine commitment. This alternative value ( $A_y$ ), or the quality of the best available alternative, is defined as:

$$A_y = (R_y - C_y) - CL$$

where  $A_y$  corresponds to the “Comparison level for alternatives” construct of interdependence theory, which is the standard by which individuals decide whether or not they will remain in an association. That is,  $A_y$  is “the lowest level of outcomes a member will accept in the light of available alternative opportunities” (Thibaut and Kelley 1959, p. 21).



**Figure 4-8 Rusbult and Farrell's Investment Model of Turnover.** (Adapted from C. Rusbult and D. Farrell, "A longitudinal test of the investment model," *Journal of Applied Psychology* 68 (1983): 429–438.)

Last, job investments ( $I_x$ ) reinforce job commitment. These investments comprise resources that are intrinsic to the job, including unvested retirement benefits and nonportable training, and extrinsic resources inextricably tied to the job, such as community services and friends at work, that are relinquished if employees quit their jobs. More formally,

$$I_x = E(w_k i_k),$$

$i_k$  refers to the size of the investment of resource  $k$  in relationship  $X$ , and  $w_k$  refers to the importance of resource  $k$ .

To summarize, job commitment ( $COM_x$ ) is a function of job satisfaction, quality of job alternatives, and size of job investments. In other words,  $COM_x = SAT_x + I_x - A_y$ . This model is depicted in Figure 4-8.

## Review

The investment model is a rich interdisciplinary model predicated on sociological and psychological constructs. Consequently, it is surprising that it has not attracted more research since its inception. In fact, only Farrell and Rusbult have tested the model. In their first study, (Farrell and Rusbult 1981) with a laboratory work simulation and a cross-sectional survey of industrial workers, the major relationships among model variables were sustained. That is, they found that job rewards and costs strongly predicted job satisfaction, that a combination of reward and cost values, the value of alternatives, and investment size strongly predicted job commitment, and that job commitment predicted turnover better than did job satisfaction.

Using a sample of eighty-eight new nurses and accountants, Rusbult and Farrell (1983) next conducted a longitudinal test and found that job satisfac-

tion rose over time as job rewards increased and job cost decreased. Meanwhile, escalating job rewards and investments boosted commitment over time, as did declining costs and quality of alternatives. Importantly, they found that temporal changes in model variables rather than their absolute levels best differentiated between stayers and leavers. For example, job costs and job investments scarcely affected the commitment of newcomers during the initial period of employment. But, as time passed, job costs grew more apparent and investments began accumulating, thereby increasingly shaping the newcomers' commitment. Consequently, temporal *changes* in costs and investments predicted commitment more than did initial job cost and investment values. Most of all, *changes* in job commitment powerfully forecast resignations.

Although their evidence is encouraging, Rusbult and Farrell narrowly construed their commitment construct as primarily withdrawal cognitions. This conceptualization conflicts, however, with more popular, multidimensional commitment constructs, which embody, not only withdrawal cognitions, but also identification with organizational values and willingness to go beyond formal work-role definitions (Mowday, Porter, and Steers 1982; O'Reilly and Chatman 1986). Whether or not the same model determinants would predict an expanded notion of organizational commitment awaits future research. Rusbult and Farrell's operationalization of job commitment includes both decisions about termination and about search, which other researchers theoretically and empirically distinguish as separate constructs (see Blau 1993; Mobley 1977; Steers and Mowday 1981). The theory oversimplifies perceived alternatives, considering only the *attractiveness* of other employment opportunities. Yet scholars of turnover envision increasingly more complex, multifaceted conceptualizations of the employment market, taking into account specific job offers (Griffeth and Hom 1988a), the attainability of alternatives (Mobley Griffeth, Hand, and Meglino 1979), and the crystallization of alternatives (Steel and Griffeth 1989). Last, one of the main strengths of investment theory—its parsimony—may nonetheless constitute a weakness. In light of more comprehensive formulations (Mobley et al. 1979; Steers and Mowday 1981), the omission from this model of many determinants, such as job search and efforts to improve working conditions, weakens its predictive efficacy (see Blau 1993; Hulin Roznowski, and Hachiya 1985).

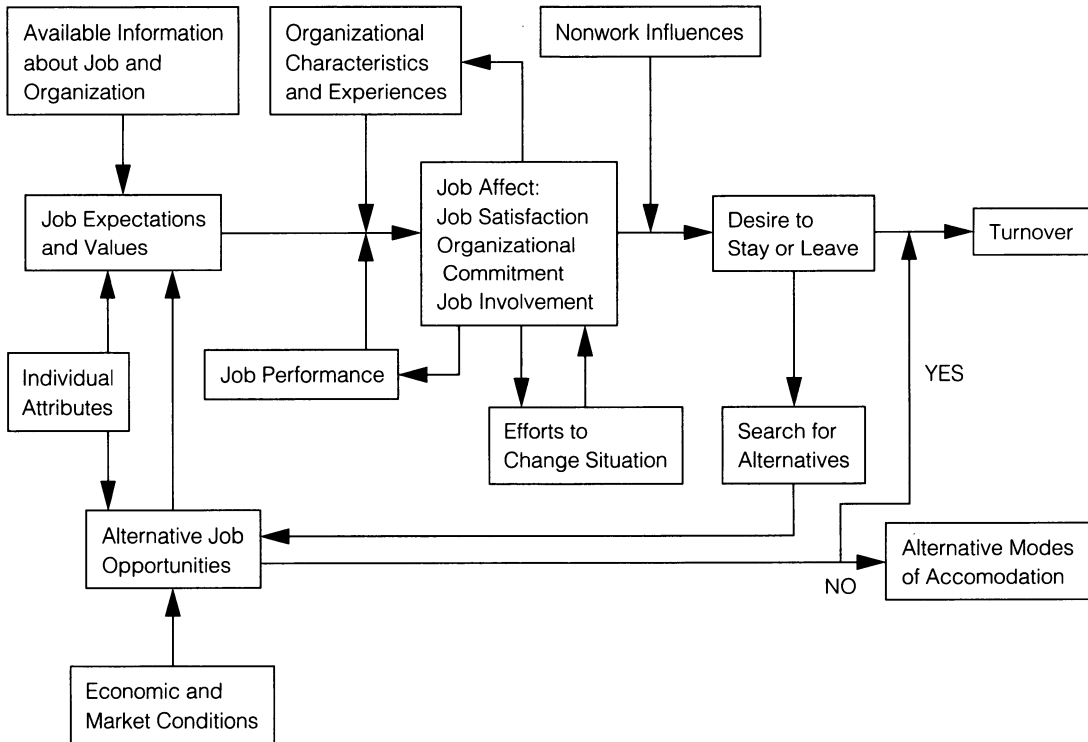
### **STEERS AND MOWDAY: MULTI-ROUTE MODEL**

Steers and Mowday (1981) advanced another comprehensive turnover model that integrates earlier theories while overcoming their conceptual shortcomings. To clarify its dynamics, they presented this framework in three segments, shown in Figure 4-9.

#### **Origins of Job Expectations and Attitudes**

Steers and Mowday theorized that an individual's value system influences his or her expectations about various aspects of a job, such as the





**Figure 4-9 Steers and Mowday's Model of Turnover.** (R. Steers and R. Mowday, "Employee turnover and post-decision accommodation processes," In L. Cummings and B. Staw (Eds.), *Research in Organizational Behavior*, Greenwich, Conn.: JAI Press; (1981): 242.)

nature of the job and rewards for satisfactory performance. Besides values, personal characteristics—such as age, tenure, and family responsibilities—underpin the expectations of employees by determining “what they expect from a job: what they feel they must have, what they would like to have, and what they can do without” (1981, p. 243). The accuracy of prior information about the job and the company will make the initial expectations more realistic and thereby lower turnover. The alternatives that are available modify expectations about the job because employees who have many attractive options may set higher expectations for their current jobs.

**Affective responses to the job.** Steers and Mowday conceived affective responses to the job as embodying job satisfaction, organizational commitment, and job involvement. They further hypothesized that job expectations and values would interact with organizational characteristics and experiences, and that job performance would influence affective responses. Extrapolating from met-

expectation theory (Porter and Steers 1973), they contended that the more closely preentry expectations align with the work experience, the greater the employee's job satisfaction and propensity to remain in the organization. Job performance also influences affective responses because high performers receive more merit pay (see Lawler 1981) and more job security.

Steers and Mowday further suggested a reciprocal causation between affective responses with job performance and organizational experiences. As previously described, job performance and organizational experiences shape job attitudes, but job attitudes may themselves impact performance and organizational experiences. Moreover, poor attitudes may prompt employees to change the work environment or transfer to other jobs before they decide to leave. If the workplace then becomes more tolerable, attitudes toward their workplace may become positive. A failure to improve the environment would strengthen the employee's resolve to abandon the job, and in the meantime, worsen the attitude toward the job.

### **How Job Attitudes Affect Intent to Leave**

Steers and Mowday further envisioned that job attitudes influence intentions to leave, although outside influences may condition the effect. That is, some employees may tolerate an unpleasant job and remain employed because of circumstances outside the job, such as its instrumentality for future career assignments, or an unwillingness to disrupt a spouse's career or uproot the family from the community.

### **The Process by Which Intent to Leave Leads to Turnover**

The third segment of the framework specifies the ways in which intentions to withdraw induce turnover. Following March and Simon (1958), Steers and Mowday posited that intentions to quit multiplicatively combine with the availability of alternatives. In essence, intentions to quit affect turnover via two causal routes. The formation of a decision to quit may directly trigger the resignation or may indirectly influence turnover by prompting employees to seek alternative jobs. Alternative opportunities partly depend on individual traits, such as age, sex, and occupation, that affect the likelihood of the person's attaining other employment. Failing to find an alternative, a job-seeking employee may revert to other forms of withdrawal, such as absenteeism, sabotage, and alcohol abuse. Dissatisfied individuals, unable to find better alternatives, may accommodate an unpleasant job by rationalizing their reasons for remaining.

Steers and Mowday also noted that employees may be presented with attractive alternatives, which will boost their expectations of their present job. Inflated expectations may, however, translate into frustration (for these expectations are less likely to be realized by the current job), worsening job attitudes and increasing the desire to leave.

## Review

The Steers and Mowday model (1981) is a complex representation of the turnover process that pioneered many innovative constructs, including the long-neglected notion that efforts to change the work environment may interrupt the process by which job dissatisfaction develops into departure. Efforts to change the job may also directly affect other determinants of turnover. For instance, Hulin, Roznowski, and Hackiya (1985) implied that efforts to change the job may reduce withdrawal cognitions because dissatisfied employees who manage to improve their working conditions would not quit. Moreover, Steers and Mowday introduced job performance as a determinant of turnover, influencing later writers to give special heed to withdrawal by superior performers whose loss produces sizable costs for the organization (see Jackofsky 1984). Furthermore, their "nonwork influences" construct persuaded other scholars to acknowledge that factors outside organizational boundaries may impel people to quit (see Hom, Kinicki, and Domm 1989). Last, Steers and Mowday rejected Mobley's prevailing view (1977) that dissatisfied employees follow only one course to departure, holding that they actually pursue one of several possible routes. Some dissatisfied employees quit immediately; others undertake the search process described by Mobley (1977). Later portrayals of the translation of dissatisfaction into quitting increasingly included Steers and Mowday's perspective (see Hom and Griffeth 1991; Hom, Griffeth, and Sellaro 1984; Lee and Mitchell 1994; Sager et al. 1992), and in other models, researchers sought to explain why employees simply quit without first seeking alternative jobs (Hulin, Roznowski, and Hachiya 1985).

Though Steers and Mowday's introduction of job performance and nonwork influences extend prior formulations, their conceptualization still demands additional refinement. They proposed that job performance interacts with organizational characteristics and experiences and with job expectations and values but they left unspecified the form of those interactions. Moreover, their definition of nonwork influences is vague, although Lee and Mowday's operationalization (1987) considered perceptions by employees of how various external factors (such as unemployment, personal lifestyle, and time left for the family) influence job affect. This operationalization does not directly reflect attachments to outside pursuits (see Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1981, 1986) or work conflicts with outside interests (Hom and Griffeth 1991; Mobley 1982a); both are more specific and promising constructs of extraneous influences. The determinant, job expectation, originated by Porter and Steers (1973), suffers the same conceptual shortcomings as the original. Indeed, this construct is most relevant to new employees who may respond to unmet expectations by quitting more than veteran employees do (Wanous 1980).

Despite its process orientation, Steers and Mowday's theory imprecisely describes several structural connections among theoretical constructs. In the wake of modern views on varied reactions to dissatisfaction, their formulation

explains only incompletely how job affect influences job performance or efforts to change the job, omitting essential behavioral antecedents as perceived consequences to those responses (Rosse and Miller 1984; Withey and Cooper 1989). Nor did Steers and Mowday specify how outside influences moderate the effects of job attitudes on decisions to quit or how performance interacts with attributes of the firm and job expectations to determine job affect (Lee and Mowday 1987). Besides, this model did not identify which particular characteristics of the company and experiences it offers, which attributes of individuals, and which job expectations and values are vital determinants. Are they referring to work values (as defined by Hulin and Blood 1968) or a general structure of values (as conceived by Rokeach 1973)? Steers and Mowday described processes that *mediated* components of their model but, schematically, they represented these processes as *moderators* in their illustration (Figure 4-9).

Several studies (including Arnold and Feldman 1982; Hom, Griffeth, and Sellaro 1984; Hom and Griffeth 1991; and Sager et al 1992) have sustained the prediction by Steers and Mowday that termination cognitions can directly stimulate resignations and predate search decisions. Only Lee and Mowday (1987) fully tested this model, surveying 445 employees of a financial institution. A regression equation comprising information about the job and organization, alternative job opportunities, and personal traits significantly predicted met expectations and job values. However, only available job and firm information explained extra variance in met expectations; alternative job opportunities and personal characteristics did not. Likewise, available information and individual attributes made independent contributions to the prediction of job values; work alternatives did not.

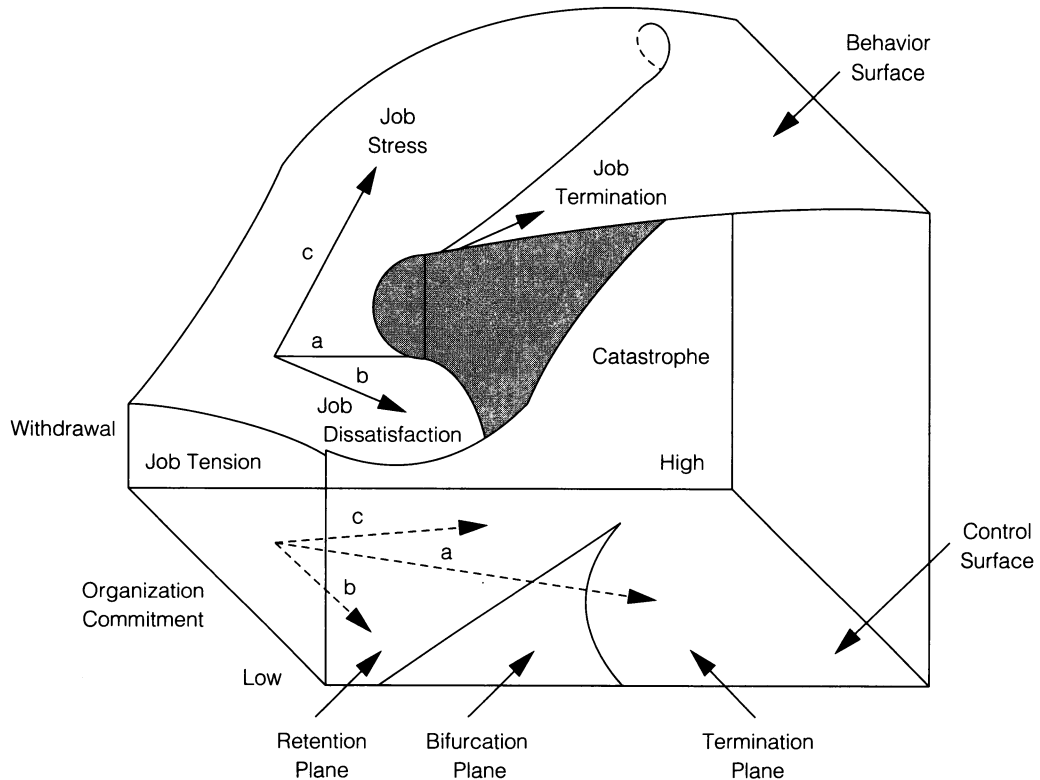
From regression analyses testing the hypothesized multiplicative effect of performance, met expectations, job values, company attributes, and work experiences, the researchers found that the complete model (comprising predictors and interaction terms) significantly predicted each job attitude. Yet these analyses did not estimate additional predictive contributions for the interaction terms, beyond that explained by the main effects (Cohen and Cohen 1983) and did not describe how predictors interacted (though Steers and Mowday never specified their form). Similarly, a full regression equation containing job satisfaction, organizational commitment, job involvement, and nonwork influences—and their interaction terms—significantly predicted decisions to quit. Here again, this analysis did not determine whether interaction terms added any independent predictive variance and did not describe the nature of interactions, although the original theoretical statements are ambiguous in depicting those multiplicative effects. Last, a regression of turnover onto intentions to quit and work alternatives found that only intentions make a significant independent contribution to prediction, and that both predictors accounted for only 5 percent of the variance in turnover.

In summary, the one complete test of the Steers-Mowday model yielded mixed or incomplete support for its validity (Lee and Mowday 1987).

Regression analyses found that each model variable was significantly predicted by its theorized *set* of antecedents. Yet several determinants did not explain independent criterion variance (notably, influences outside work, alternatives, and efforts to change the job). Hypotheses about moderators received incomplete support because the regression analyses did not estimate the special contributions interaction terms made to prediction beyond that predicted by main effects nor described the exact form of their effects. In the examination of the model (James, Mulaik, and Brett 1982), the possibility that causal pathways omitted from this model are truly nonexistent was not tested. Tests of models must validate not only the pathways posited by theorists but also the pathways they specified as absent (see, for example, the "omitted parameters" test of Motowidlo and Lawton [1984]). Intentions to quit and the existence of alternative jobs explained only 5 percent of the turnover variance. Additional research is warranted to validate the Steers-Mowday model. In particular, future replications should refine the operationalizations of nonwork influences, efforts to change the job, and work alternatives because their substantive validity may be better supported by measures that are more psychometrically sound.

### **SHERIDAN AND ABELSON: CUSP CATASTROPHE MODEL**

Deviating from conventional thinking, Sheridan and Abelson (1983) developed a cusp catastrophe model based on two determinants. In their model, organizational commitment and job tension define a two-dimensional control surface, with withdrawal behavior projected as a third, vertical axis (see Figure 4-10). The conceptualization has three characteristics. First, withdrawal behavior is a discontinuous variable with abrupt changes observed between different states of withdrawal. Presumably, employees try to maintain their current employment as long as possible. Once dissatisfaction accumulates (from declining commitment to the company or work stress), the employees abruptly shift states from being determined to stay to being determined to leave. Second, the theory represents a hysteresis zone of behavior as a fold in the behavior surface. Projected as a bifurcation plane on the control surface, this fold reflects the state of transition from retention to termination. Third, divergent behaviors occur on opposite ends of the bifurcation plane. That is, "as an employee approaches the fold region, even small changes in the control variables can result in discontinuous changes from retention to termination" (1983, p. 422). Thus, two employees may have minimally different commitment and stress. Yet if they reside on opposite sides of the bifurcation plane, one may quit, while the other stays. Conversely, two employees expressing quite dissimilar commitment and stress may still exhibit the same withdrawal behavior if they fall on the same side of the bifurcation plane.



**Figure 4-10 Sheridan and Abelson's Cusp Catastrophe Model of Employee Turnover.** (J. Sheridan and M. Abelson. "Cusp catastrophe model of employee turnover," *Academy of Management Journal*, 26 (1983): 421.)

### Review

Thus far, two studies have tested the cusp catastrophe model sampling nurses. In the first study, Sheridan and Abelson (1983) assessed job tension and organizational commitment to define the control surface. To test the existence of a bifurcation plane, they compared quit rates on both sides of the bifurcation plane to the total quit rate. The turnover rate in the bifurcation plane was 22 percent (compared to a 17 percent overall quit rate), in the retention plane, 4 percent, and in the termination plane, 41 percent. The total quit rate varied significantly from quit rates in the retention and termination planes, but not the bifurcation plane. Sheridan and Abelson also estimated this model's accuracy in classifying the nurses' employment status in the retention and termination planes. In line with the model, the bifurcation plane accurately differentiated most quitters from stayers in the retention plane, misclassifying merely 4 percent of the quitters as stayers. Still, the bifurcation plane misclassified 59 percent of the stayers as quitters in the termination plane.

Using a panel survey, Sheridan and Abelson further tracked temporal changes in job tension and commitment for stayers and leavers. In general, these tests upheld the cusp catastrophe model, showing that leavers were positioned closer to (or in) the bifurcation plane than were stayers. Over time, the leavers moved into the bifurcation or termination plane, while the stayers barely changed. Regression analyses disclosed that the cusp catastrophe model more correctly classified turnover status (84 percent) than did a linear model (49 percent), although hit rates did not significantly differ. In a study of new nurses (1985), Sheridan replaced commitment to the company with group cohesion as a control surface variable, deeming it a more relevant "attractor" for newcomers than commitment is. From cusp-catastrophe theory, he derived a topological equation describing the cusp-catastrophe surface. This equation predicts withdrawal changes from Time-1 withdrawal actions (declining performance or absenteeism) to Time-2 turnover as a function of the following:

$$B_0 + B_1W_1^3 + B_2W_1^2 + B_3(T \times W_1) + B_4C + B_5T,$$

where  $W_1$  = current Time-1 withdrawal behavior (either poor job performance or absenteeism),

$T$  = job tension, and  $C$  = group cohesion.

Using regression analysis, he estimated this equation, running separate analyses for different Time-1 withdrawal acts. The regression equation, including poor performance as the Time-1 withdrawal act, did *not* significantly predict terminations ( $R = .129$ ). However, the equation specifying absenteeism as the Time-1 withdrawal behavior significantly predicted turnover ( $R = .207, p < .05$ ). In this equation, the quadratic and cubic components for past absences explained additional turnover variance, suggesting discontinuous transition as withdrawal becomes progressively more extreme. As he did in his 1983 study, Sheridan next examined observations of turnover on the control surface defined by cohesion and job tension. Using cusp-catastrophe criteria, he identified boundaries for retention, termination, and bifurcation regions on the control surface and found that quit rates for these planes were 18 percent, 89 percent, and 33 percent, respectively. Regional location on the control surface accurately forecast turnover status, correctly classifying 86 percent of the participants in the study.

The cusp catastrophe model is a major breakthrough in thinking about turnover. Departing from prevailing linear assumptions, this model depicts quits as a discontinuous function of turnover determinants. As confirmed by two tests, the consideration of nonlinear effects of the antecedents of turnover may enhance predictions of terminations (Sheridan and Abelson 1983; Sheridan 1985). Counteracting modern theoretical developments, this model explains turnover with a parsimonious set of antecedents while retaining predictive power. All too often, in successive generations of theories, explanatory constructs proliferate and how parsimonious a theory accounts for turnover is neglected (Hom and Griffeth 1991). This model considers a broader pattern of withdrawal responses than have previous theo-

ries that focus narrowly on turnover. That is, in this theory, resignations are seen as one manifestation of job avoidance and turnover is considered to evolve from less extreme forms, such as absenteeism and poor performance. This model may also explain transitions among the less extreme forms of withdrawal (see Sheridan 1985).

All the same, the cusp catastrophe model merits more empirical and theoretical work. For example, its two determinants (job tension and commitment/cohesion) insufficiently capture the sundry reasons why employees quit, because the vast literature on motives for turnover (Mobley, Griffeth, Hand, and Meglino 1979; Mobley 1982a) has been overlooked. Moreover, Sheridan and Abelson suggested that differences among individuals be taken into account in the model but provided little theoretical guidance. Future tests should include the Time-1 linear term of withdrawal in addition to its quadratic and cubic terms in the *same* regression equation. Though quadratic and cubic terms are posited by cusp-catastrophe theory, true nonlinear effects are revealed after statistically controlling the linear effects (Cohen and Cohen 1983). Indeed, Sheridan's estimated linear interaction models (1985), comprising the Time-1 linear term of withdrawal, job tension, and group cohesion (and their interaction), consistently uncovered linear effects for Time-1 withdrawal behaviors on quits.

This preliminary work possibly overestimated the accuracy of classification in the cusp catastrophe model. The researchers identified the boundaries of the bifurcation plane by inspecting the distribution of observations on turnover in the two-dimensional control space and used the various combinations of threshold scores on the control variables to predict whether or not employees quit. Such *empirical* identification of cutoff scores must be cross-validated on another sample because threshold scores uncovered empirically improve the accuracy of prediction by capitalizing on chance (see Wiggins 1973).

Despite these shortcomings, the cusp catastrophe model is a provocative divergence from traditional linear thinking. More research is needed to test the theory in general and with samples of employees who are not nurses. Though many scholars (Mobley, Griffeth, Hand, and Meglino 1979; Steers and Mowday 1981) have suggested that turnover is a dynamic process, the cusp-catastrophe theory formally models this process and thus becomes a significant theoretical milestone in an understanding of the turnover process.

### **HULIN, ROZNOWSKI, AND HACHIYA: LABOR-ECONOMIC MODEL**

Reviewing empirical tests on job alternatives, Hulin, Roznowski and Hachiya concluded (1985) that perceptual estimates of labor-market prospects have predicted turnover poorly, whereas aggregate labor-market statistics, such as unemployment rates, predicted turnover consistently (and strongly). To account for such discrepant findings, they proposed that work



alternatives can directly affect job satisfaction, a reversal of the contention that it is satisfaction that influences alternatives (see Mobley 1977). They also held that job opportunities may directly induce turnover because employees quit when they are sure of an alternative job, not because they surmise from local unemployment data that there is a *probability* of a job. The reconceptualization envisioned a different role in the turnover process for job opportunities (see March and Simon 1958; Mobley 1977). They hypothesized that there were three mechanisms to explain why perceived alternatives minimally affect individual turnover. In the following sections, we review those mechanisms.

### **Different Economies Produce Different Work Forces**

Hulin, Roznowski and Hachiya argued (1985) that economic expansion attracts casual or marginal workers into the labor force. They do not normally work regularly, but prosperous times lure them into full-time employment because the job surplus drives up wages. Nevertheless, marginal employees do not plan to stay employed for very long. After accumulating enough funds, they will quit to pursue more pleasurable or less stressful avocations. Given their weak orientation toward work, these workers are unlikely, when quitting, to engage in the complex cognitive processes theorized by turnover scholars (such as Mobley 1977).

### **Job Opportunities Directly Influence Job Satisfaction**

Drawing from several models (March and Simon 1958; Salancik and Pfeffer 1978; Smith, Kendall, and Hulin 1969; Thibaut and Kelley 1959), the researchers maintained that economic activities, such as employment levels, directly influence job satisfaction. High unemployment in decreasing adaptation and comparison levels for alternatives bolsters job satisfaction. Low unemployment and plentiful alternatives promote dissatisfaction and intentions to quit. More precisely, Hulin, Roznowski and Hachiya conceptualized that foregone alternatives are “opportunity costs” employees incur to maintain membership in their present organization. During good economic times when jobs are abundant, the utilities of foregone alternatives increase, thereby reducing satisfaction with the present job. During economic stagnation, the expected utility of alternatives declines and satisfaction with the present job increases.

### **Job Opportunities Directly Affect Turnover**

Extrapolating from Michaels and Spector’s work (1982), Hulin, Roznowski and Hachiya further contended that job opportunities affect turnover directly and not necessarily through intentions to quit. Presumably, most employees do not quit merely on the chance of finding an alternative

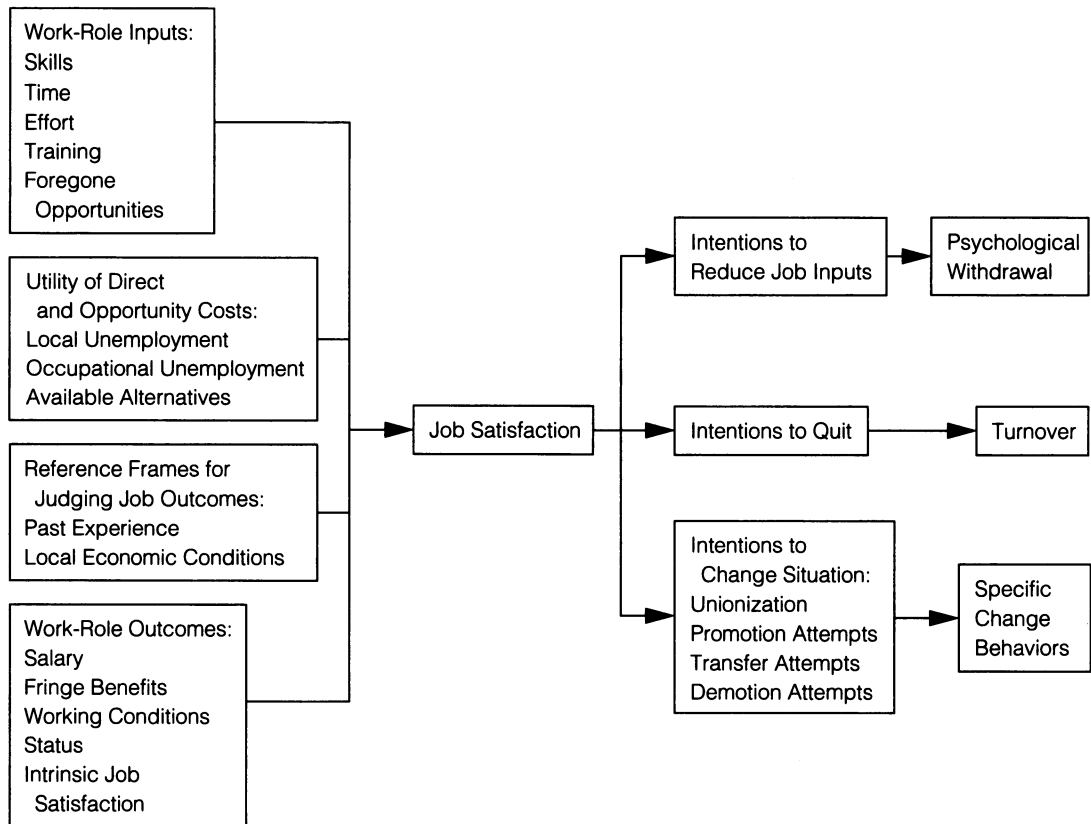
(that is, because they perceive that alternatives are available) but when they actually secure job offers. Thus, they reasoned, alternative work and dissatisfaction about the job interact in affecting quitting. The more jobs there are available, the more likely it is that dissatisfied employees can find and obtain other jobs and thus can leave their unsatisfactory positions. Job dissatisfaction and job offers must both exist for withdrawal to occur. In passing, the researchers also observed that present-day models of turnover implicitly assume that dissatisfied employees only consider alternative work, failing to recognize that many leavers pursue alternatives other than work, which may also explain why perceptions of alternative work do not readily translate into departures.

Combining these explanations, Hulin, Roznowski and Hachiya designed a model that clarifies the influence of labor-market factors on decisions to quit (see Figure 4-11). Their specification that the availability of alternatives directly influences satisfaction in two ways is consistent with an economic utility theory (for example, March and Simon 1958). Economic conditions affect the value of an employee's contribution of skills, time, and effort to the firm. Low unemployment increases the value of an individual's contributions and the utility of foregone opportunities, making continued membership in a company costly. As a result, job satisfaction declines unless the benefits of membership are equivalently increased. At the same time, the good economic conditions bolster an employee's frame of reference for evaluating the quality of the job. Therefore, the employee devalues the current job and becomes more dissatisfied. Unemployment, by comparison, decreases the utilities of direct and opportunity costs *and* limits the frame of reference for judging the job, thereby boosting job satisfaction.

For many people, dissatisfaction about the job translates directly into decisions to quit. Once dissatisfied, some employees simply form intentions to quit without considering alternatives; others secure alternative offers before quitting. For the latter, the attractiveness of *certain* job offers, rather than the mere probability of a job estimated from local unemployment data, dominates their decision to quit. Still other workers in intolerable jobs may simply decide to quit, assuming that anything would be better than what they are currently doing.

Some dissatisfied employees never make the decision to quit because of various lures or obstacles (perhaps, inertia, low self-esteem, or "golden handcuffs"). Such trapped employees may reduce their dissatisfaction by enacting other withdrawal behaviors, thereby decreasing their job inputs. Given the same level of job outcomes, their satisfaction should grow with declining inputs. Moreover, these withdrawal behaviors may be manifested cyclically, the employees try different responses until they lower their dissatisfaction successfully. Some employees who cope with dissatisfaction by performing other withdrawal acts may be implicitly forming decisions to quit in that their excessive withdrawal behaviors may lead to their dismissal.

Marginal drifters—drawn into regular work by job surpluses—also quit because they are dissatisfied. Yet these individuals would be dissatisfied with any full-time, regular job. They quit, not to take a better job, but because they



**Figure 4-11 Hulin, Roznowski, and Hachiya's Labor-Economic Model of Turnover.** (C. Hulin, M. Roznowski, and D. Hachiya, "Alternative opportunities and withdrawal decisions: Empirical and theoretical discrepancies and an integration," *Psychological Bulletin* 97 (1985): 246. Copyright 1977 by the American Psychological Association. Adapted by permission.)

became bored with their present job and assume that any new position will be superior—at least in the short run. Casual workers translate dissatisfaction into decisions to quit because of a general dislike of regular, full-time work.

## Review

Hulin, Roznowski and Hachiya (1985), offering a perceptive reexamination of the role of work alternatives in the withdrawal process, resolved a long-standing controversy in the study of turnover. They provided an invaluable taxonomy of the different types of quitters, including marginal drifters and leavers seeking alternatives other than work. These leavers follow a different route to departure from the conventional pathway of job dissatisfaction → job

search → quit decisions → quit (Mobley 1977). Their theory explains why job dissatisfaction does not invariably lead to quitting: Employees may respond to dissatisfaction not by quitting but by reducing their job inputs or by changing the current job by way of transfers or unionization. For them, presumably, psychological withdrawal or a change of job would substitute for departure. The formulation reconceptualizes turnover as one among many behavioral reactions to dissatisfaction, thereby going beyond the traditional preoccupation with surface behaviors (Hulin 1991).

Although explaining the different effects of unemployment rates and perceived alternatives on turnover, Hulin and his fellow researchers provided no direct evidence. To date, no research has directly tested the model or its components. Conceivably, notions of adaptation level, comparison level, and the comparison level of alternatives are too generally conceptualized and thus defy ready operationalization. The behavioral responses to dissatisfaction also merit greater clarification for the behaviors that “reduce job inputs” were not specified and other behavioral reactions—namely, alternative acts of withdrawal, such as absences, and other forms of voice (see Farrell 1983)—were omitted. However, Hulin recently (1991) refined his 1985 formulation, expanding and elaborating on behavioral reactions to dissatisfaction to include the following:

Intentions to increase job outcomes, for example, stealing or moonlighting;

Intentions to reduce job inputs, for example, long coffee breaks, substance abuse, or gossip;

Intentions to reduce work-role inclusion, for example, quitting, lateness, absence, or retirement; and

Intentions to change the work role by, for example, unionizing, transferring, or demotion.

Many scholars, among them Farrell (1983), Rossé and Hulin (1985), Withey and Cooper (1989), are currently developing and validating scales to assess behavioral responses to dissatisfaction. Though not striving for a comprehensive model, Hulin, Roznowski and Hachiya (1985) nonetheless excluded many fundamental explanatory constructs, such as commitment to the organization, outside influences, and job search, that have been affirmed as underpinnings of turnover (Blau 1993; Hom and Griffeth 1991; Lee and Mowday 1987; Price and Mueller 1986).

### **LEE AND MITCHELL: UNFOLDING MODEL**

Lee and Mitchell (1994) generalized Beach’s image theory (1991) to further the understanding of termination decisions. Image theory challenges prevailing turnover theories that assume an economic rational basis for decision making (Hulin, Roznowski and Hachiya 1985; Mobley, Griffeth, Hand, and

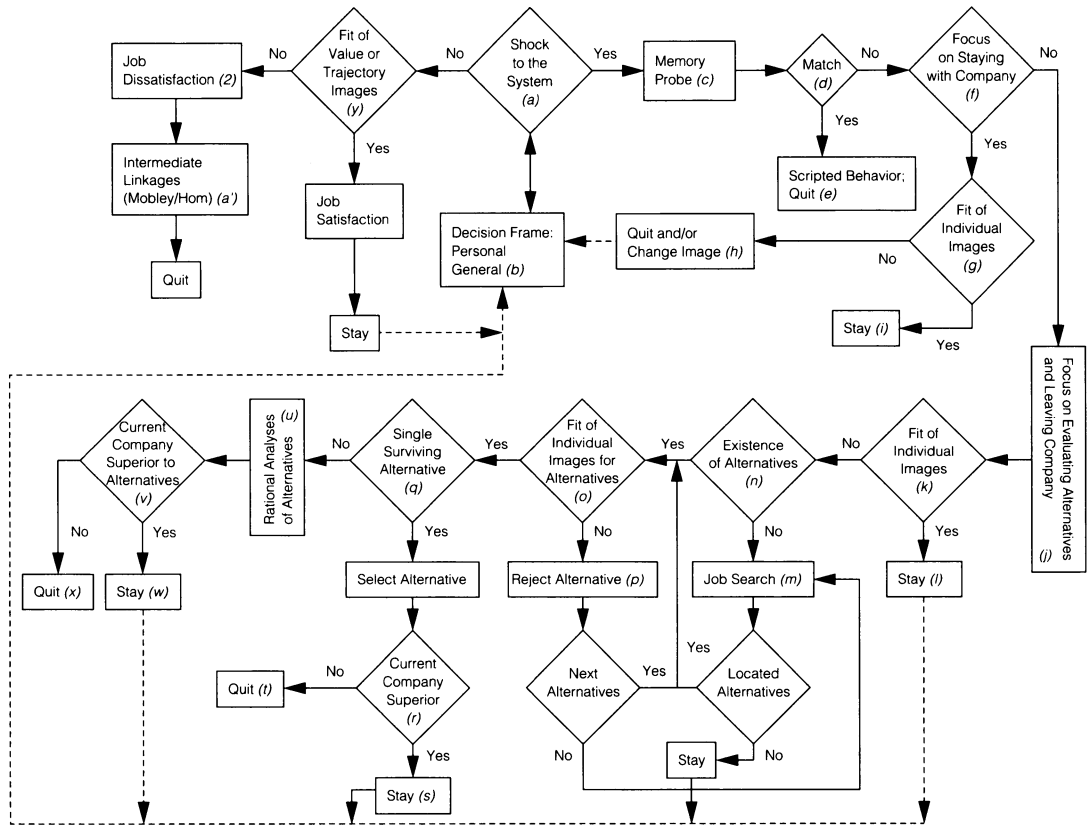
Meglino, 1979) and presumes that people make decisions by comparing the fit of the options in the decision to various internal images rather than by maximizing the subjective expected utility. Image theory posits that people must filter the constant bombardment of information to select suitable options. This screening is rapid, requires little cognitive effort, and compares the characteristics of options to one of three internal images: value (set of general values and standards that define the self); trajectory (set of goals that energizes and directs individual behavior); or strategic (set of behavioral tactics and strategies for attaining personal goals). This test of compatibility is noncompensatory and requires that the options fit one or more images. If a behavioral option meets the test, the individual compares the alternative to the status quo. Usually, the individual continues with the status quo; sometimes she or he chooses to behave differently. If numerous options survive the screening, a person runs a "profitability" test, choosing the best alternative according to a cost-benefit analysis.

### Decision as a Response to Shock

Extending image theory, Lee and Mitchell further proposed (1994) that the entire process of screening and decision making begins with a "shock to the system," a specific event that jars the employee to make deliberate judgments about his or her job and perhaps to consider quitting the job. Lee and Mitchell theorized that the social and cognitive context that surrounds the experienced shock provides a "decision frame"—or frame of reference—with which to interpret the shock along dimensions, such as novelty, favorability, or threat. Then, according to their theory, employees will take one of four ways, "decision paths," to leave their jobs. These different paths to turnover are portrayed in Figure 4-12.

**Decision Path 1.** In the first path, a shock (diamond *a*) jars an employee to construct a decision frame (box *b*) for interpreting the shock and prompts the employee to search her memory for decisions, rules, or learned responses to similar shocks (box *c*). For example, a shock might be IBM's acquisition of one's smaller company; a rule might be "I will never fit the IBM mold." This probe of memory also brings forth recollections of whether one's previous staying or quitting was appropriate. If the decision frame of the current experience is identical to prior frames and quitting was the appropriate response, then a match (diamond *d*) occurs. Quitting (box *e*) is thus automatically enacted with little mental deliberation ("I have previously quit large corporations"). If a match does not occur, another decision path is initiated. In summary, decision path 1 is basically a script-driven response (involving a match with past decisions) to an experienced shock.

**Decision Path 2.** In the second decision path, the employee experiencing a system shock (diamond *a*) cannot recall an identical shock that has an appropriate response associated with it or a rule of action (box *c*). Therefore no



**Figure 4-12 Lee and Mitchell's Unfolding Model of Turnover.** (T. Lee, and T. Mitchell "An alternative approach: The unfolding model of voluntary employee turnover." *Academy of Management Review* 19 (1994): 62-63.)

The effect no match occurs (diamond *d*). Rather, the employee considers the situation and frames the shock as a choice, without specific job alternatives in mind, between staying with or quitting the present firm (diamond *f*). Next, the employee relies on the value, trajectory, or strategic images to reassess his or her basic commitment to the company (diamond *g*). If the shock violates these images, the employee changes the image or leaves (box *h*). If the shock fits, the employee stays (box *i*). To illustrate, a woman may unexpectedly become pregnant and must decide whether working fits with her images of being a competent mother (value), having a career (trajectory), or continuing in her sales job (strategy). If the shock violates any image, she will resign her job.

**Decision Path 3.** Here, a shock (diamond *a*) elicits a memory probe (box *c*) but a match between the shock currently being experienced and the recall of a similar shock or an easily accessible rule does not occur (diamond *d*). The

employee frames the shock as a choice between staying with the company or quitting for one or more specific job alternatives (box *j*). The shock is next judged for image compatibility (diamond *k*). The employee stays (box *l*) if the shock fits but considers (diamond *n*) and seeks alternatives (box *m*) if it does not. Should the shock violate images, he or she then compares other alternatives to value, trajectory, or strategic images (diamond *o*) and deletes those failing the compatibility test (box *p*). If only one alternative fits (diamond *q*), the employee contrasts this alternative to the benefits of remaining employed (diamond *r*). The employee stays if the current job provides more benefits (box *s*) but leaves if the alternative is superior (box *t*). If numerous alternatives survive the compatibility test, the employee conducts a profitability test, comparing their subjective expected utilities (box *u*) against that of the present job. If the current job surpasses all alternatives (box *v*), the employee remains (box *w*); if an alternative is superior, the employee quits (box *x*).

**Decision Path 4.** According to the fourth path, some employees will occasionally reassess their commitment to the company. Their reassessment does not emanate from shock but occurs more routinely or casually. Over time, the employee or company may change and the job no longer fits the employee's value or trajectory images (diamond *y*). The resulting dissatisfaction (box *z*) triggers the withdrawal process (box *a'*) described by Mobley (1977) or Hom and Griffeth (1991), wherein employees evaluate their prospects of alternative employment, seek other jobs, compare them to the present job, and form decisions about quitting. This fourth path thus complies with traditional depictions of the translation of dissatisfaction into quitting.

## Review

Deviating from the conventional, Lee and Mitchell's theory (1994) contributes many valuable theoretical insights and provides a refreshing new perspective. Their generalization of image theory may depict the procedure of decisions to quit more accurately and comprehensively than does rational expectancy theory, which may more clearly explain only decision path 3, and not all of the decision processes. Lee and Mitchell introduced the notion of scripted (routinized, nonanalytical) turnover behavior, which may underlie impulsive quitting (Mobley 1977) and departures by members of the secondary labor market (Hulin, Roznowski, and Hachiya 1985). Their notion of system shocks—external, unexpected, or random events—accords greater theoretical attention to the origin of the turnover process, an aspect that prevailing formulations neglect (see Baysinger and Mobley 1983). Last, this theory specifies various sequences of withdrawal, broadening the generalizability of the model to more segments of the labor force (Hom and Griffeth 1991; Hulin, Roznowski, and Hachiya 1985).

No empirical research has yet investigated this latest explanation of turnover. The theoretical complexity of their model is daunting, but Lee and Mitchell (1994) have suggested various methodologies, including those of

retrospective interviews and protocol analysis, to capture the decision paths. They recommended different statistical procedures to test different processes: survival analysis for decision path 1 and logistic regression for decision paths 1 and 3. We hope that, despite the methodological challenges, such bold theorizing attracts rather than repels further research. Indeed, we expect that the model's creators will begin to evaluate their theory with well-planned and well-executed studies to prevent their novel ideas from withering on the intellectual vine.



# **NEW EXPLANATORY CONSTRUCTS IN TURNOVER WORK**

In this chapter, we review promising theoretical constructs that may advance the understanding of organizational withdrawal. Though not complex models, these constructs may elaborate the meaning of theoretical variables in comprehensive theories, which all too often vaguely specify model constructs. New constructs may supplement conceptual frameworks that, despite their expansive scope, may overlook essential antecedents to turnover. Thus, these constructs are important not only in their own right but also because they may provoke the revision of more complete theoretical formulations of withdrawal.

## **PERCEIVED ALTERNATIVES TO WORK**

Perceived alternatives to work and economic opportunity represent central constructs in leading models of turnover (Farrell and Rusbult 1981; March and Simon 1958; Mobley 1977; Mobley, Griffeth, Hand, and Meglino 1979; Price 1977; Price and Mueller 1981, 1986; Steers and Mowday 1981). Perceived alternatives and economic opportunities constitute different conceptualizations of, at different levels of analysis, the availability of jobs. Economic opportunities refer to an objective condition of the availability of jobs and may affect turnover or moderate its influences. Perceived alternatives represent the employee's perceptions of the labor market. Unfortunately, in organizational research, the effects of perceived alternatives on individual turnover have been found to be weak or nonexistent. This contrast to the findings of the labor economists that unemployment rates have strong effects on quit rates (see Hulin, Roznowski, and Hachiya 1985; Mobley 1982a). We review research on these constructs in the following section.

Griffeth and Hom proposed (1988a) that imprecision, ambiguity, and diversity in operationalizations of perceived alternatives are likely to have resulted in an understatement of its effects on turnover. Different conceptualizations of the construct in various theories partly spawned alternative representations. March and Simon (1958), Price and Mueller (1981; 1986), and Steers and Mowday (1981) considered the number and availability of job opportunities; Farrell and Rusbult (1981) emphasized their quality. Mobley (1977), Mobley, Harner, and Hollingsworth (1978), and Mobley et al., (1979) stressed both the attainability and desirability of alternatives; Billings and Wemmerus (1983) construed perceived alternatives as a personal attribute, hope, arguing that an employee may be optimistic that viable alternatives exist without necessarily knowing the actual number or quality of those alternatives.

Inviting more confusion, empirical operationalizations often misrepresented corresponding conceptual definitions (Griffeth and Hom 1988a). For example, Price and Mueller's concept (1981 1986) embraced both number and availability of alternatives but their measure combined a subjective estimation of job vacancies in the labor market and a personal estimation of chances of finding alternatives (that is, they were measuring hope). Most models imply that specific positions lure employees away from their present job (Hulin et al. 1985), but prevailing measures refer to vague, general impressions of alternatives (see Youngblood, Mobley, and Meglino 1983). Indeed, the typical measurement is determined by simply asking employees to estimate the probability of finding an acceptable alternative (see Mobley, Horner, and Hollingsworth 1978).

Griffeth and Hom (1988a) compared the relative validity of several operationalizations of perceived alternatives within the context of Mobley, Griffeth, Hand, and Meglino's turnover model (1979). They found that no measure of perceived alternatives made a significant independent contribution to the prediction of turnover beyond job satisfaction and expected utility of the present job. Surprisingly, perceptions of specific jobs ("expected utility of alternatives" [ibid.]) predicted intentions to quit less accurately than did more general perceptions of the labor market. Though a pioneering effort, perceived alternatives may have limited influence on decisions to quit in their sample of nurses (who may quit for alternatives apart from work or look for other employment *after* quitting) and deficient representation of alternatives (considering only hospitals within the metropolitan area, thereby excluding jobs outside the city or in different states) likely weakened their measures of perceived alternatives.

Using meta-analysis, Steel and Griffeth (1989) more precisely estimated relationships between perceived alternatives and turnover. Affirming Hulin, Roznowski, and Hachiya's impression (1985), Steel and Griffeth uncovered a modest correlation:  $r_{mean} = .13$ . Hulin et al. had suggested several reasons for the minimal impact of perceived alternatives on withdrawal decisions. For one, drifters or casual workers (such as secondary wage earners), who are attracted into full-time employment during economic prosperity (which drives up wages), quit their jobs when they accumulate savings to pursue more enjoyable or less stressful avocations on a full-time basis. These peripheral workers do not quit to take a better, more satisfying job elsewhere; they abhor full-time, regular employment. Similarly, perceptions of the labor market do not underpin the intentions of leavers who are opting out of the work force—permanently or temporarily—to pursue other activities, such as childrearing. Departing from conventional assumptions, Hulin et al. further argued that alternative work may affect quit decisions through job affect. Perceived alternatives scarcely affect turnover because their effects are indirect and depend on transmission by job satisfaction.

Steel and Griffeth further proposed that three methodological problems factors may attenuate relationships between perceived alternatives and

turnover. One problem is the predominance of occupationally homogeneous samples in research on turnover, which may restrict variance in perceptions of employment opportunities. Testing this idea, Steel and Griffeth correlated unemployment rates and correlations, derived from various studies, between perceived alternatives and quit rates. They hypothesized an inverse relationship between joblessness and the correlation between alternatives and turnover because as jobs become more plentiful, perceived alternatives should more strongly induce turnover. They were right: Correlations between alternatives and quit rates themselves inversely correlated with national, regional, and industrial unemployment statistics.

Contrary to the hypothesis, the correlations between alternatives and turnover *positively* covaried with occupational unemployment. Suspecting bias, because eight of fourteen occupational studies had sampled nurses, Steel and Griffeth sorted the studies into two subgroups, of nurses and of other workers, and recomputed the statistics. They found that occupational joblessness correlated *negatively* with correlations between alternatives and quit rates for the non-nursing sample ( $r = -.76, p < .05$ ), as originally predicted, and positively for the nurses ( $r = .83, p < .05$ ). They reasoned that, because the nursing labor market is persistently strong, nurses can readily enter and exit the work force with minimal job search and need for comparison. Because nurses take the job market for granted, perceptions of alternatives do not dominate their decisions to quit (Griffeth and Hom 1988a; Mowday, Koberg and McArthur 1984).

Steel and Griffeth also suggested that turnover base rates may affect the predictive accuracy of perceived alternatives. Testing this moderator, they correlated quit rates across different studies with correlations of perceived alternatives and turnover. The resulting  $.60$  ( $p < .01$ ) correlation indicated that the quit base rate accounted for 36 percent of the variance in this relationship. Thus, a larger variance in turnover (quit rates approaching 50 percent) would boost the estimated effects of perceived alternatives on turnover among other things. What is more, attenuation resulting from extreme base rates is especially acute in the literature on perceived alternatives. Homogenous sampling coupled with low quit rates constrain the variance in the predictor and the criterion. When both variables are restricted, the attenuating effects on relationships among the variables may be multiplicative rather than additive (Alexander, Carson, and Alliger 1987).

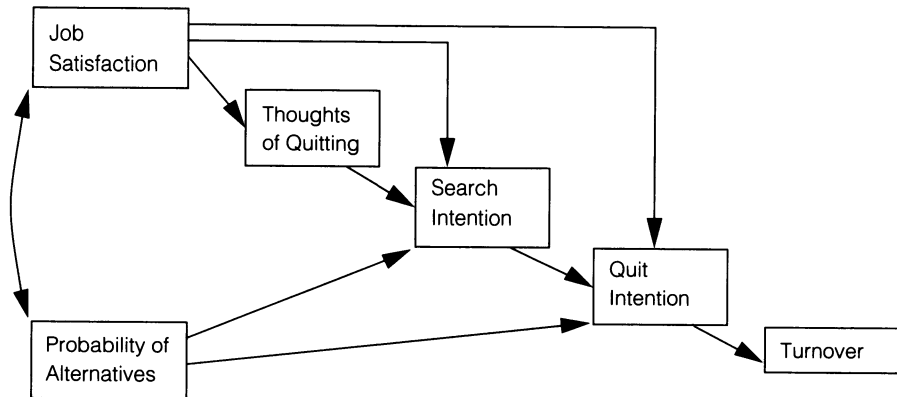
Poor instrumentation also possibly weakened the observable influence of perceived alternatives on turnover. Perceived alternatives were typically operationalized by deficient and unreliable measures. Most studies (59 percent) used single-item ratings. Concluding their review, Steel and Griffeth suggested the following avenues for future research on perceived alternatives: (1) sampling a wider range of jobs and occupations, (2) exploring methods to yield more optimal turnover base rates, (3) developing a multivariate conceptualization of alternatives, and (4) improving instrumentation.

## Economic Opportunity

Economic opportunity is the objective counterpart to perceived alternatives. Unlike labor-economic studies on this macro construct (Mobley 1982a), relatively few organizational studies examined how economic opportunity affects turnover among individuals. For example, Gerhart (1987) found that regional unemployment rates moderate correlations between satisfaction and turnover. In a meta-analysis, Carsten and Spector (1987) correlated unemployment rates with correlations, derived from various studies, between satisfaction and turnover and also found that economic expansions facilitate the translation of dissatisfaction about the job into departure.

Dreher and Dougherty (1980) found job competition, statistics which they obtained from the United States Department of Labor's *Occupational Outlook Quarterly* (1976), did *not* affect turnover through any interaction with attitudes about the job. Their classification of employment opportunity is noteworthy because the *Occupational Outlook* provides independent evaluations of the supply and demand for most professional and technical jobs. A major drawback is that these projections are made on a national basis (which possibly accounts for the absence of moderators), whereas local or regional job markets may better disclose any moderation of relationships between satisfaction and quitting. Using local unemployment statistics, Youngblood, Baysinger, and Mobley (1985) did find that *both* job satisfaction and joblessness affect turnover and that the relationship between job satisfaction and turnover strengthens during prosperous economic times.

Hom, Caranikis-Walker, Prussia, and Griffeth (1992) used meta-analysis to cumulate studies testing the Mobley, Horner, and Hollingsworth model (1978), depicted in Figure 5-1. They grouped studies by various indices of unemployment to test the way in which unemployment moderates various pathways in the model. Occupational unemployment moderated the pathway between decisions to quit and turnover more than did other joblessness statistics. All forms of unemployment nevertheless conditioned the pathway between satisfaction and withdrawal cognitions (search intentions; quit intentions), although they exerted an opposite moderating impact. That is, depressed occupational labor markets decreased the pathway between satisfaction and thoughts of quitting but heighten the impact of satisfaction on search and quit intentions. In contrast, national and regional unemployment reinforced the pathway between satisfaction and thoughts of quitting while reducing the pathway between satisfaction and decisions to quit. What is more, national unemployment weakened the relationships between probability of alternatives and withdrawal cognitions, whereas occupational joblessness increased them. All forms of unemployment moderated the pathway between search intentions and decisions to quit, though in contrary directions. Expansive occupational markets reinforced this linkage, but prosperous regional and national markets diminished it.



**Figure 5-1 Mobley, Horner, and Hollingsworth's Model of Turnover.** (W. Mobley, S. Horner, and A. Hollingsworth "An evaluation of precursors of hospital employee turnover," *Journal of Applied Psychology*, 63 (1978): 410. Copyright 1978 by the American Psychological Association. Adapted by permission.)

## Review

Labor economists have long recognized that turnover rates and overall employment conditions strongly relate at the aggregate level (Armkecht and Early 1972; Price 1977; Woodward 1975). These macro-level findings do not, however, help explain the processes underlying the reasons an individual quits, which comprise a different construct from that of organizational or industry turnover rates (Dreher and Dougherty 1980; Rousseau 1985). Recent organizational studies nevertheless suggest that unemployment rates can influence turnover at the individual level by interacting with determinants of turnover, such as job satisfaction, or by directly affecting departures. Hom, Cranikis-Walker, Prussia, and Griffeth (1992) showed that unemployment has more complex effects on the withdrawal process than was previously envisioned (it moderates various steps in the process) and that different forms of unemployment manifest dissimilar effects on withdrawal.

## JOB PERFORMANCE

At least four research streams used job performance to clarify the turnover process. In one stream, performance was combined with turnover to define functional or dysfunctional turnover (see Chapter 1).

### Performance and Voluntary Quits

At least four research streams used job performance to clarify the turnover process. In one stream, performance was combined with turnover to define functional or dysfunctional turnover (see Chapter 1). In a second, researchers sought to determine if performance and voluntary turnover were

reliably related and to identify the sign of this relationship. Early studies characterized this relationship as *negative*: (poor performers quit more often [see, for example, Keller 1984; McEvoy and Cascio 1987; Sheridan and Vredenburg 1978; Stumpf and Dawley 1981]), or *positive*: (good performers quit more often [see, for example, Allison 1974; Bassett 1967; Blau and Schoenherr 1971; Lazarfeld and Thielens 1958; Pavalko 1970; Pederson 1973]), or even *indeterminate* (see, for example, Mobley 1982a; Price 1977; Bluedorn and Abelson 1981). Adding to this confusion, some researchers have characterized this relationship as *zero* (Martin, Price, and Mueller 1981). Resolving such conflicting findings, recent meta-analyses (Bycio, Hackett, and Alvares 1990; McEvoy and Cascio 1987; Williams and Livingstone 1994) estimate an *inverse* correlation between performance and turnover, though positive correlations are possible under certain conditions.

Those meta-analyses identified various moderators of the negative correlation between performance and turnover. For one, short time lapses between the measurements of performance and turnover attenuated their association (McEvoy and Cascio 1987). Explaining this moderation, McEvoy and Cascio argued that the relationship appears only after employees decide to leave. After that decision is formed, job performance declines precipitously before the employee quits. McEvoy and Cascio also found that national unemployment rates affect the correlation. Job scarcity increased it so that it became more *negative*: poor performers increasingly leave during poor job markets. Williams and Livingstone (1994) found that contingent pay systems strengthen correlations between performance and quitting, incentive pay accelerating exits by marginal performers.

### Performance and Overall Turnover

In a third research stream, Jackofsky's hypothesis (1984), which posits a curvilinear, U-shaped relationship between performance and overall turnover (combining voluntary and involuntary quits) was tested. Extrapolating March and Simon's theory (1958), Jackofsky reasoned that, at low performance levels, involuntary turnover (dismissal) is high. As performance increases to some middle level, both involuntary and voluntary exits decline—presumably because average performers cannot easily find alternatives but neither do they face dismissal. As performance increases beyond the middle range, however, voluntary turnover increases because good performers can change jobs easily.

Testing this curvilinear hypothesis, Jackofsky, Ferris, and Breckenridge (1986) found significant U-shaped curves that accounted for 3 percent and 17.6 percent of the turnover variance among accountants and truck drivers, respectively. This study is noteworthy because the performance of the truckers was measured objectively, by the revenue earned. Later, Mossholder, Bedeian, Norris, Giles, and Feild (1988) replicated those curvilinear relationships in a study of operative electronic employees and textile supervisors. Williams and Livingstone's meta-analysis (1994) summarized the results from eight studies and found that curvilinear relationships between performance and turnover hold reliably.

## Interactive Effects of Performance on Turnover

In a fourth stream, researchers sought to determine if the desirability of job movement (defined as job satisfaction) interacts with performance to affect turnover. Given their greater mobility, effective performers can more easily translate their dissatisfaction with the job into departure than can poor performers. "Thus, the negative relationship between satisfaction and turnover should be stronger for higher, as compared to lower, performers" (Jackofsky 1984, p. 79). Mossholder et al. (1988) tested this prediction with two samples and found that the interaction held for operatives—accounting for 1 percent of the turnover variance—but not for textile supervisors.

Opposing Jackofsky's "perceived alternatives" contention (1984), Lance (1988) advanced a "contingent rewards" rationale (Dreher 1982; Spencer and Steers 1981), theorizing that there is a stronger negative relationship between job satisfaction and turnover for *poor* performers than there is for good performers. Supposedly, most firms retain the good performers by rewarding them more generously than they reward poor performers, which decreases the latter's morale (Zenger 1992). Poor performers are more likely to be "pushed" from the job by dissatisfaction; good performers are readily "pulled" from their present jobs by factors unrelated to their own satisfaction (by, for instance, unsolicited job offers, movement to a higher-level job with another company, or "incidental" job search resulting in an alternative employment opportunity). Using turnover intentions as dependent variable, Lance sustained the "contingent rewards" hypothesis for first-line supervisory and hourly technical groups, but not for other occupational groups.

## Review

Job performance exerts complex effects on the turnover process. Nonetheless, the theoretical premise for interactive and curvilinear performance effects is that good performers have more or better alternatives than do poor performers (Jackofsky 1984; Lance 1988). Yet the notion that effective performers have better job opportunities may not always hold. Conceivably, an objective verifiability of job performance would determine whether or not effective performers have more plentiful jobs. Incumbents in many occupations cannot provide any objective documentation of their work achievements to other prospective employers, who must rely on less trustworthy resumes or references to discern an applicant's credentials. University professors can list scholarly publications to document their accomplishments. Schwab found (1991) that accomplished scholars more readily quit for other academic posts than do inept professors. Schwab's finding bears replication for other professionals whose achievements can be authenticated by prospective employers, for example, professional athletes, top executives, scientists and engineers. Future research must assess the greater employability of higher performers directly than rather than infer their marketability from elevated quit rates.

Empirical studies only partially sustained both competing, interactive performance effects. Mossholder et al. (1988) found *some* support for Jackofsky's view (1984) that the negative correlation between satisfaction and quit is higher for effective performers. Lance (1988) found *some* evidence for the "contingent reward" hypothesis, which posits a stronger correlation between satisfaction and quitting for marginal performers. Further scholarly inquiry might explore moderators underlying these discrepant findings. Quite likely, closer examinations of the nature of the reward system (Zenger 1992), type of performance measures, and occupational job markets may uncover promising moderators.

## ORGANIZATIONAL COMMITMENT

The popularity of the notion of organizational commitment extends over three decades. Becker (1960) first formally analyzed this construct and proposed the side-bet notion, wherein several conditions under which "side bets" are made by the individual, organization, and culture encourage employees to stay on the job. For example, generalized cultural expectations, impersonal bureaucratic arrangements, individual adjustments to social positions, and face-to-face interactions all involuntarily bind an employee to the company "by default."

In the 1970s, Porter and his colleagues (Porter, Steers, Mowday, and Boulian 1974; Mowday, Porter, and Steers 1982) advanced a new conceptualization, specifying commitment as comprising: (1) a strong belief in and acceptance of the organization's goals and values, (2) a willingness to exert considerable effort on behalf of the organization, and (3) a strong desire to maintain membership in the organization. They developed the Organizational Commitment Questionnaire (OCQ) to assess their concept, and the OCQ eventually became the leading index for testing hypotheses about attachments to companies (see Mathieu and Zajac 1990). Undertaking a longitudinal test, Porter et al. (1974) first demonstrated that commitment more effectively differentiated stayers and leavers than did job satisfaction. Later, Porter, Crampon, and Smith (1976) showed that differences in commitment between stayers and leavers grow as the time lag between turnover and assessments of commitment shrinks.

Subsequently, Steers (1977) proposed and conducted a two-sample test of a model in which organizational commitment mediated three classes of antecedents (personal traits, such as need for achievement and age; job characteristics, such as task identity and feedback; and work experiences, such as group cohesion) and multiple consequences (quit intentions, attendance, turnover, and job performance). Most of the antecedents significantly predicted commitment, but the relationships of commitment to turnover ( $r = -.17, p \leq .05$ ) and other outcomes, such as attendance and performance, were low or insignificant. Although partially upheld, Steers's framework (and



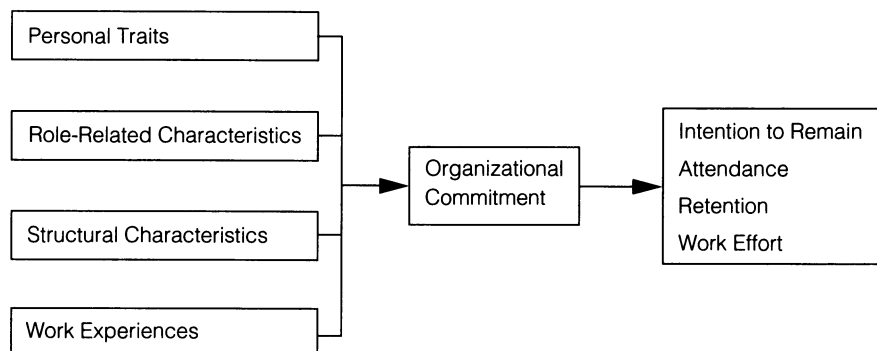
its later variant [see Figure 5-2]) has activated numerous scholarly explorations of the causes and outcomes of commitment.

In a comprehensive meta-analysis, Mathieu and Zajac (1990) summarized the studies on the antecedents and consequences of commitment, organizing the results according to an expanded framework based on Steers (1977). This framework, including corrected “population” correlations between commitment and its causes or outcomes, is shown in Figure 5-3. Individuals with certain qualities are predisposed to form commitments to a company. Notably, employees who are older ( $r = .20$ ), self-confident ( $r = .63$ ), and work-oriented ( $r = .29$ ) most bond with their firms. Interestingly, the strong self-efficacy influence suggests that employees will make commitments to companies that gratify their needs for growth and achievement.

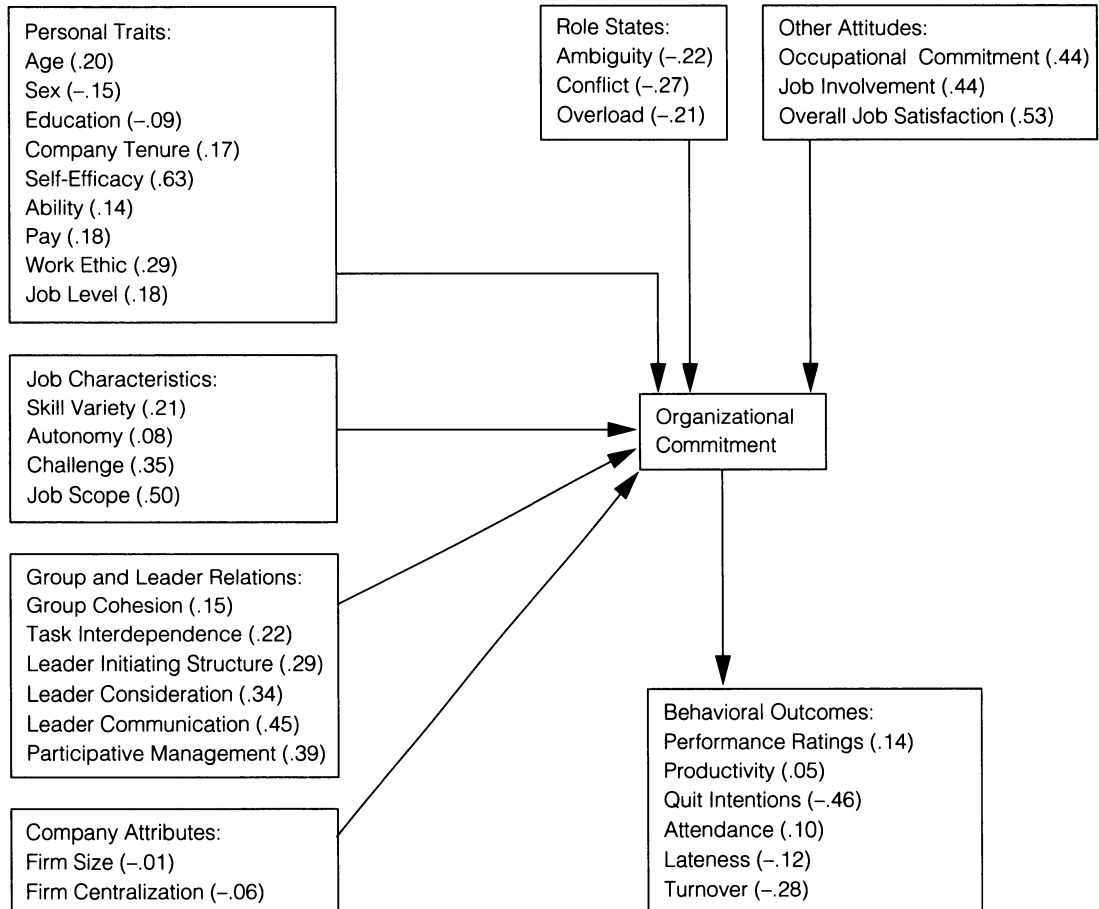
Employees are also bound to organizations by various dimensions of complexity of job duties, including job scope (overall job complexity,  $r = .50$ ) and challenge ( $r = .35$ ). By comparison, ambiguity ( $r = -.22$ ), conflict ( $r = -.27$ ), and overload ( $r = -.21$ ) in the work role will loosen company affiliations. Leadership, especially leader communication ( $r = .45$ ) and participative management ( $r = .39$ ), and occupational commitment ( $r = .44$ ), job involvement ( $r = .44$ ), and job satisfaction ( $r = .53$ ) reinforce bonds of loyalty. Committed employees quit less often ( $r = -.28$ ) and receive higher performance evaluations ( $r = .14$ ) than do uncommitted employees.

## Review

Despite its impressive pattern of relationships, organizational commitment has garnered criticisms on grounds of measurement and conceptualiza-



**Figure 5-2 Mowday, Porter, and Steers’s Model of Organizational Commitment.** (Adapted from R. Mowday, L. Porter, and R. Steers, *Employee-Organization Linkages*, New York: Academic Press, (1982): 30.)



**Figure 5-3 Mathieu and Zajac's Meta-analytical Model of Organizational Commitment.** (Adapted from J. Mathieu and D. Zajac, "A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment; *Psychological Bulletin* 108 (1990): 174. Copyright 1990 by the American Psychological Association. Adapted by permission.)

tion. Though commitment predicts quits better than does job satisfaction, Mobley, Griffeth, Hand, and Meglino (1979) expressed reservations that the inclusion of intentions to quit in the OCQ scale possibly inflated its predictive validity. Hom and his colleagues (Hom and Hulin 1981; Hom, Katerberg, and Hulin 1979) statistically removed an independent measure of intentions to quit from correlations between turnover and attitudes. After those decisions were partialled out, correlations between commitment and quitting did *not* surpass correlations between satisfaction and quitting. Hom and Hulin thus concluded "that the predictive power of OC resides not in its

assessing a more relevant employee attitude, but in its assessing intention to withdraw from the organization" (1981, p. 34).

Over the years, other conceptualizations of commitment have surfaced. Reichers (1985) reconceptualized commitment in terms of different constituents, recognizing the influences (values and goals) of multiple reference groups (constituency) and roles in organizations. She posited three definitions: (1) side-bets, or the rewards and costs of membership in an organization, (2) attributions, or the binding of the individual to behavior, and (3) congruence between the goals of the individual and the organization. This concept of "multiple commitments" is a significant theoretical milestone, refining as it does the original global conception of commitment (see Porter et al. 1974) by delineating its multiple facets.

O'Reilly and Chatman (1986) also specified three dimensions of commitment to an organization: (1) compliance (instrumental involvement for extrinsic rewards), (2) identification (involvement based on desire for affiliation), and (3) internalization (involvement predicated on congruence between the values of the individual and the company). They developed an instrument to measure these bases and administered a survey to university personnel. Predictably, factor analysis substantiated three separate factors, and the survey showed that commitment based on internalization or identification increased organizational citizenship and decreased turnover. Compliance, however, weakened decisions to remain with the organization.

Similarly, Allen and Meyer (1993) identified three kinds of commitment: affective, continuance, and normative. Affective attachment corresponds to Porter's conception; continuance refers to the economic, side-bet approach espoused by Becker (1960). Normative commitment, which is defined as moral responsibility to the organization, extends past perspectives. In two studies, Allen and Meyer developed measures of this multidimensional construct and then estimated relationships between these forms and antecedents of commitment. Results differentiated these forms, showing them to be rooted in disparate causes.

In summary, modern theoretical and empirical efforts increasingly suggest that commitment has multiple dimensions. Despite their varying terminology, writers on commitment apparently agree on three dominant dimensions: (1) attitudinal (internalization, identification [O'Reilly and Chatman 1986]; affective [Allen and Meyer 1993]) (2) calculative (compliance [O'Reilly and Chatman 1986]; continuance [Allen and Meyer 1993]); and (3) normative (*ibid.*). Differentiating attitudinal from calculative commitments, Mathieu and Zajac's meta-analysis (1990) revealed that attitudinal commitment correlated with job satisfaction and quit decisions more than did calculative commitment. Future research should substantiate our crude taxonomy, perhaps by using multitrait-multimethod approaches to establish convergence among different, but parallel constructs. Though increasingly recognizing company commitment, present-day theories of turnover have lagged behind the theoretical development of the concept of commitment (Price and Mueller 1986; Rusbult and Farrell 1983; Sheridan

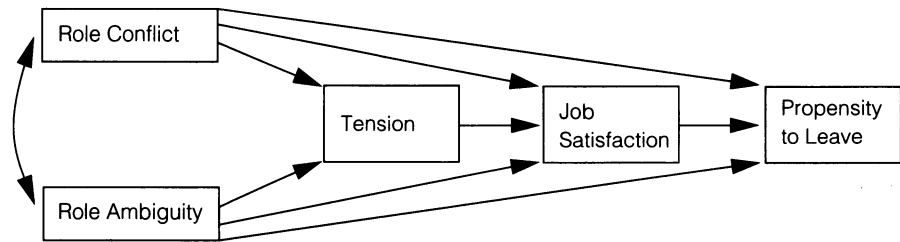
and Abelson 1983; Steers and Mowday 1981). Further refinements of extant turnover models must acknowledge the different forms of commitment and clarify the different ways in which those forms might influence the termination process.

The causal direction of organizational commitment and job satisfaction remains mired in controversy. Early on, Bateman and Strasser's cross-lagged correlation and regression analyses (1984) found that commitment affects satisfaction. Yet two cross-sectional studies using structural equations modeling (SEM) found commitment to be a *consequence* of job satisfaction (Williams and Hazer 1986). Panel research using SEM analysis (Curry, Wakefield, Price, and Mueller 1986; Farkas and Tetrick 1989) found that neither attitude displayed lagged effects on the other attitude. Farkas and Tetrick found synchronous influences between the attitudes but overlooked many causes of both attitudes, testing a misspecified model (Anderson and Williams 1992). Upon reanalysis, new SEM tests rejected even synchronous effects after correlated disturbances were specified to capture omitted causes (ibid.). Mathieu's cross-sectional test (1991) of a nonrecursive model, which included many attitudinal antecedents, uncovered reciprocal causality, albeit one that showed that satisfaction affects commitment more than commitment affects satisfaction. These findings thus tentatively suggest that there is reciprocal *and* synchronous causality between commitment and satisfaction, with satisfaction influencing commitment more than vice versa. This causality accords with the contention held by Price and Mueller (1986) and Rusbult and Farrell (1983) that commitment translates the impact of dissatisfaction into exits.

## JOB STRESS AND BURNOUT

Kahn and Quinn (1970) broadly defined job stress as constituting ambiguity in the work role, role conflict, and role overload. Although the contention is intuitively appealing, the few studies available disagree about whether job stress triggers terminations. For example, early research, such as that by Weitz (1956) and Lyons (1971), reported that ambiguity of work role increases turnover. Hamner and Tosi found (1974) that role conflict and ambiguity did not affect turnover. Frese and Okonek found (1984) that job-related stress among shift workers did not boost their departure.

To account for such weak, conflicting findings, organizational researchers deduced that role stress only indirectly induces quits through job dissatisfaction (Gupta and Beehr 1979). Because stress is uncomfortable, employees become dissatisfied and avoid work by tardiness, absenteeism, or quitting. More formally, Bedeian and Armenakis (1981) proposed a causal model describing the effects of role conflict and ambiguity on job tension, job satisfaction, and intentions to quit. This model, which path analyses supported, is shown in Figure 5-4. In another path analytical test, Kemery, Bedeian, Mossholder, and Touliatos (1985) validated this model in three



**Figure 5-4 Bedeian-Armenakis Model of Role Stress.** (Adapted from E. Kemery, A. Bedeian, K. Mossholder, and J. Touliatos, “Outcomes of role stress: A multisample constructive replication,” *Academy of Management Journal* 28 (1985): 365.)

samples of accountants and a hospital sample, finding that most causal pathways were significant across diverse samples.

Netemeyer, Johnston, and Burton (1990), using latent variables SEM methodology, retested the Bedeian-Armenakis model with a salesforce sample. Though validating all indicators, their SEM analysis supported only 50 percent of the causal pathways in the structural model. Specifically, role conflict increased tension and dissatisfaction (though not affecting quit propensity), but role ambiguity did not affect any components of the model. Predictably, tension reduced satisfaction, which in turn, increased propensities to quit. Perhaps occupational differences or SEM controls for measurement errors accounted for the findings by Netemeyer et al., that the model was weaker than Kemery et al. (1985) had found it.

Going beyond conventional research into role stress, Jackson, Schwab, and Schuler (1986) adopted Maslach’s model (1982) of job burnout, which embodies emotional exhaustion, depersonalization, and beliefs about lack of personal accomplishment. Their survey revealed that school teachers who remained on the job (or left for other reasons) said that they felt less exhausted than did those leaving for a new teaching job or leaving the teaching profession entirely. Still, depersonalization and feelings of inadequacy did not affect rates of attrition among teachers.

## Review

In summary, studies of turnover are preoccupied with role conflict and ambiguity as primary stress-related determinants of withdrawal. Yet other forms of job stress—derived from environmental sources, such as noise, crowding, and threat of criminal assault, and psychological sources, such as time pressure and sexual harassment—might induce people to leave their jobs (see Frese and Okonek 1984). Surely such narrow conceptualizations may explain why mainstream theories on turnover have generally excluded job stress. Quite likely, turnover theorists presume that role strain is no different from job dissatisfaction and that poor work conditions

encompass role stress (see Mobley, Griffeth, Hand, and Meglino 1979). Excepting job burnout, factors traditionally associated with role stress thus seem redundant in light of explanatory constructs in models of turnover. Recent theories have introduced new constructs of stress, such as “adaptation” (Hulin 1991), “job tension” (Sheridan and Abelson 1983), and “system shock” (Lee and Mitchell 1994).

Stress researchers universally contend that job stress induces turnover through dissatisfaction. Surprisingly, little research has directly substantiated this assumption. Evaluations of the Bedeian-Armenakis model tested whether job satisfaction mediates the impact of role stress on *intentions* to quit, not on actual turnover. Thus, this critical mediational pathway awaits future corroboration.

Though Jackson, Schwab, and Schuler’s results (1986) are worthwhile, job burnout seems to be less a cause of turnover than a reaction to more fundamental causes, such as excessive workload and insufficient autonomy on the job. That is, the same factors that induce job burnout may be producing terminations. Reflecting psychological withdrawal from frustrating working conditions, job burnout may simply be an emotional prelude to eventual withdrawal from the job (see Hulin, Roznowski, and Hachiya 1985). Job burnout may accurately foreshadow turnover, but the phenomenon appears to be limited to the care-giving fields (nurses, social workers, and ministers) and is not readily generalizable to other professions.

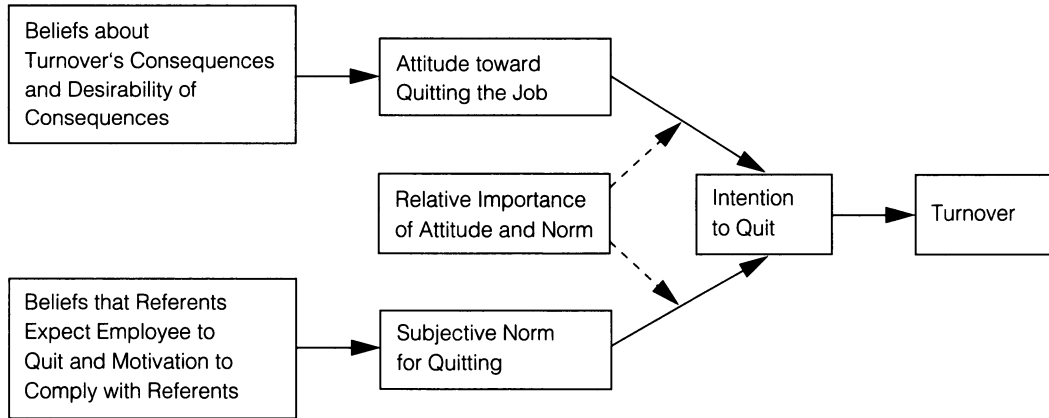
## THE THEORY OF REASONED ACTION

Organizational researchers have extended Fishbein’s general attitude-behavior theory (1975) to explain employees’ behavior. Drawing from expectancy theory (see Vroom 1964), the “theory of reasoned action” (see Figure 5-5) assumes that people use information rationally to make behavioral decisions. This process of decision making arises from beliefs about behavioral outcomes and social expectations and moves toward behavioral attitudes and social norms, to behavioral intentions, and finally to action (Prestholdt, Lane, and Mathews 1987). Accordingly, the immediate determinant of behavior (*B*) is behavioral intention (*BI*). Intention, in turn, is derived from attitudes toward performing the behavior (*Act*) and perceptions of social pressure to enact the behavior (*SN*). These relationships are expressed in the following equation:

$$B \approx BI = w_1 Act + w_2 SN,$$

where  $w_1$  and  $w_2$  are relative weights estimated by standardized regression coefficients, signifying causal significance.

The attitudinal and normative components then originate from specific beliefs. Essentially, *Act* is a function of beliefs about behavioral consequences and evaluation of these consequences. Algebraically, this is expressed:



**Figure 5-5 Fishbein and Ajzen's Theory of Reasoned Action.** (Adapted from M. Fishbein and I. Ajzen, *Belief, Attitude, Intention and Behavior*, Reading, Mass: Addison-Wesley, (1975) 334.)

$$Aact = \sum_{i=1}^n b_i e_i,$$

where  $b_i$  is the expectation that behavioral performance yields outcome  $i$ ,  $e_i$  is the desirability of outcome  $i$ , and  $n$  is the number of salient outcomes.

Similarly,  $SN$  depends on beliefs about which referent others want the individual to perform the act and the individual's motivation to comply with the referents. Formally:

$$SN = \sum_{r=1}^m NB_r M_{c_r},$$

where  $NB_r$  is the normative belief that referent  $r$  thinks the person should or should not perform the behavior;  $M_{c_r}$  is the motivation to comply with the referent, and  $m$  is number of relevant referents.

Four studies have applied Fishbein's theory to turnover. Surveying nursing home employees, Newman (1974) contrasted the predictive utility of an early version of the Fishbein model (1967) to that of job satisfaction. The Fishbein model predicted turnover more accurately than did satisfaction. Hom and his associates (Hom, Katerberg, and Hulin 1979; Hom and Hulin 1981) also compared the relative efficacy of Fishbein's model, organizational commitment, and job satisfaction for predicting reenlistment in the National Guard. The forecast by Fishbein's model ( $R^2s = .50$ ) was the more accurate.

Prestholdt, Lane, and Mathews (1987) assessed the Fishbein model's effectiveness for predicting turnover among nurses and introduced several modifications. The researchers expanded the model by adding, as another

determinant of behavioral intention, the moral obligation to perform the act. Conceivably, feelings of moral obligation in members of an altruistic profession may bolster their decisions to stay. The researchers also assessed the nurses' beliefs about, attitudes toward, and intentions of staying *and* of resigning, computing the scores for differences among the components of the model to predict turnover. They reasoned that decisions to quit implicitly reflect a comparison between the relative attractiveness of staying and leaving (see Hom 1980). Thus, with knowledge of a person's cognitions and affect toward all behavioral options, one would be able to predict the person's behavioral decision more accurately than with knowledge of beliefs and feelings about only one alternative. According to cross-validated hierarchical regression analyses, the Fishbein model (and its refinements) strongly predicted turnover among nurses ( $R^2 = .32$ ).

### Review

Overall, the Fishbein model's impressive validity for predicting turnover ( $R^2$ s = .50 and .32 for Hom and Hulin [1981] and Prestholdt, Lane, and Mathews [1987], respectively) suggests that, if forecasting turnover were one's goal, Fishbein's model is the model of choice. Besides this, knowledge about employees' beliefs about the consequences of turnover and about which referents urge them to quit can suggest interventions to improve retention (*ibid.*). If an understanding of the turnover process is one's goal, Fishbein's model has limited value, overlooking, as it does, sources underlying behavioral and normative beliefs. For example, why do resigning nurses believe that by quitting, they will have more time for their family and why are they pressured by their spouses to leave (*ibid.*)? Are these beliefs rooted in "kinship responsibilities" (Price and Mueller 1986) or "nonwork influences" (Steers and Mowday 1981), both explanatory constructs posited by turnover writers? Such additional explication of the origins of behavioral and normative beliefs (and other determinants of turnover) is the basic objective of most theories of turnover.

Future extensions of the Fishbein model for turnover might consider new theoretical revisions of it. Ajzen (1991) introduced the notion of perceived behavioral control, or beliefs about personal ability to execute the act, to Fishbein's basic theory. Supposedly, beliefs about volitional control over the act reinforce decisions to perform the act through greater perseverance and correct forecasts of behavioral obstacles. Bagozzi and Warshaw (1990) and Triandis (1977) theorized that past actions may directly boost behavioral intentions and occurrences without mediation by mental deliberations of action outcomes or referent demands. These added behavioral precursors may, however, influence certain types of turnover decisions. Perceived behavioral control may best affect decisions about reenlistment, when military organizations can reject soldiers seeking reenlistment because they are incompetent, disabled, or specialized in a military occupation for which demand is declining (see Mobley, Hand, Baker, and Meglino 1979). Similarly, multiple earlier quits



may primarily boost terminations by marginal drifters and casual workers (Hulin, Roznowski, and Hachiya 1985).

### **ATTRIBUTIONS OF PERFORMANCE**

According to Weiner's attribution theory (1972, 1979), employees are information processors who seek causal interpretations for their personal achievements. To explain their success or failure, employees invoke the following explanatory factor(s): ability (which is inferred from past successes or failures at similar tasks), task difficulty (which is inferred from the success of others doing the task), luck (which is inferred from a prior pattern of random task outcomes), and effort (which is inferred from task persistence). Weiner classified these attributions along two dimensions: the locus of the causal factor (internal or external to the person) and the stability of the causal factor (a stable or unstable cause). Ability is a stable internal factor, whereas effort is an unstable internal factor; task difficulty is a stable external cause and luck an unstable external cause.

Extending Weiner's theory, Parsons, Herold, and Leatherwood (1985) conceived that demoralizing, perhaps erroneous, personal attributions for job performance by new employees may impel their premature departure. Surveying new female room attendants working for a hotel, Parsons and fellow researchers asked them to think about their performance and identify causal factors responsible for their performance. They found that new employees attributing their performance to luck were more likely to have resigned within six months of starting the job than were those who attributed their performance to ability, effort, or the difficulty of the task. Apparently, when luck is considered to be the explanation of early performance, feelings of achievement are undermined, and insecure newcomers are then motivated to quit prematurely rather than to persist in the job. Positive feedback from the supervisors (based on supervisory reports) increased the newcomers' internal attributions and their tendency to stay. Perhaps employees, receiving performance cues from their supervisors, make causal attributions based on that feedback, and those attributions shape their decisions about quitting.

### **Review**

Parsons, Herold, and Leatherwood's intriguing findings (1985) merit replication and consideration by theorists of turnover. Quite possibly, performance attributions can further account for the causes of turnover in various conceptual schemes. To illustrate, self-explanations of work effectiveness may affect job performance, which, in Steers and Mowday's formulation (1981), is both outcome and cause of job attitudes. That is, dissatisfied employees who habitually attribute their success to hard work or superior ability may be most likely to improve their performance and thus reverse their inferior records and poor attitudes. Dissatisfied employees making such interpretations may also try to change the situation (another

response to dissatisfaction) because they feel more optimistic about improving the job given that self-affirming attributions. Yet employees who rely on ability and effort to explain work achievements may hold higher job expectations of the job and feel more dissatisfied (for the job is less likely to meet inflated expectations) (*ibid.*).

Future work might evaluate attribution-based interventions to stem the early attrition of newcomers (Parsons, Herold, and Leatherwood 1985). Supervisors could encourage trainees to use more performance attributions that are self-enhancing. That is, they might encourage attributions to effort after trainees have turned in a poor performance—by believing, for example, they were insufficiently persistent—and attributions to effort and ability after a good performance (taking more pride in their achievements). By prompting such self-attributions (while discouraging attributions to luck), supervisors might prevent premature resignations among new hires.

## CAREER DEVELOPMENT

Krau (1981) conceptualized turnover as a career decision dependent on an employee's career stage. He observed that job changes are commonplace during the exploratory stage of a career and that job stability characterizes the establishment stage. However, a midlife crisis may induce job mobility. If it does not, employees in midcareer enter a maintenance phase, when family responsibilities and life experiences anchor them to the job. Krau further posited that an individual's career type (ascendant or horizontal) and a firm's promotional system (open or inert) shape decisions about quitting. Ascendant individuals (who have a strong orientation toward vocational upward mobility and the qualifications to attain it) would remain in an open system, which provides ample promotions, whereas the horizontally oriented (who lack career ambitions) prefer inert companies, where promotions are rare. Ascendants are, therefore, more likely to quit inert firms; horizontals more readily leave open firms.

To test these hypotheses, Krau first carried out a retrospective study, collecting demographic data on former employees to assess their career stages. This study disclosed that 63 percent of leavers were single and only 15 percent supported several children, indicating that family responsibilities stabilize employment. Workers who had worked in several previous production jobs or acquired more training less readily quit their present job. Most quitters left shortly after entering the firm, and although turnover was higher among younger people, it began to increase again at about age thirty-five.

In a second, longitudinal study, Krau (1981) sampled apprentice lathe operators to examine how career type interacts with promotional system. He first contacted the apprentices after they had completed their schooling and worked for a year. Then he tracked their work history and career development five years later. Apprentices completed a summary measure comprising vocational aptitude (e.g., mechanical reasoning), attitudes toward work and authority figures (using a projective personality test) and vocational interest

(measured by reading preferences for book titles), mastery of their vocation (knowledge of lathe technology), initial adaptation (performance during first year on the job), and demographic indices of family ties, by which their career type (ascendant scores) was indexed. Krau then classified these 110 operators as ascendants or horizontals based on their ascendant scores. He regarded promotional systems as open if at least 10 percent of all candidates were promoted to a higher job within a five-year period; otherwise, he deemed the promotional system as inert. Statistical analysis uncovered the predicted interaction between career type and promotional openness on turnover. Expectedly, horizontals were much more likely to quit open systems than inert systems, whereas ascendants were more likely to leave inert systems than open systems.

### Review

Krau's career stage is a promising explanatory construct that is inadequately represented by existing formulations of turnover. At best, several theories specify family responsibility and job investments, which may indirectly reflect different career stages (Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1986; Rusbult and Farrell 1983). That is, midlife employees have larger family obligations and more job investments (if they have long tenure in the firm) than do employees in the exploratory stage. Nonetheless, we welcome more direct evidence of the viability of this career construct and its causal impact on turnover. After all, Krau's preliminary study operationalized career stage with demographic proxies and did not demonstrate its predictive validity given retrospective data.

Several frameworks of turnover study have preexisting constructs that made Krau's career type and promotional system redundant. Though Krau's measure comprised an odd concoction of heterogeneous indices, career type seemed akin to promotional aspirations or desires, which several turnover theories already posit. For example, Steers and Mowday (1981) and Mobley, Griffeth, Hand, and Meglino (1979) acknowledged preferences for job outcomes, and by extension, preferences for advancement prospects as attitudinal antecedents. Similarly, Krau's promotional system resembles "promotional opportunities" or "expected utility of the present work role" in prevailing models (Mobley 1982a; Mobley et al. 1979; Price and Mueller 1981; 1986). Nevertheless, we welcome additional validation efforts to refine Krau's index of ascendant career type. Furthermore, future investigations should replicate the predictive validity of this instrument in Western samples. Krau did not differentiate between voluntary and involuntary turnover among his sample of Eastern European workers. He argued that East European managers who refuse to endorse a worker's leaving can make it difficult for him to get another job. Thus, workers often deliberately do a poor job to get managerial approval of their departure. Krau thus assumed that all or most dismissals were "voluntary" quits.



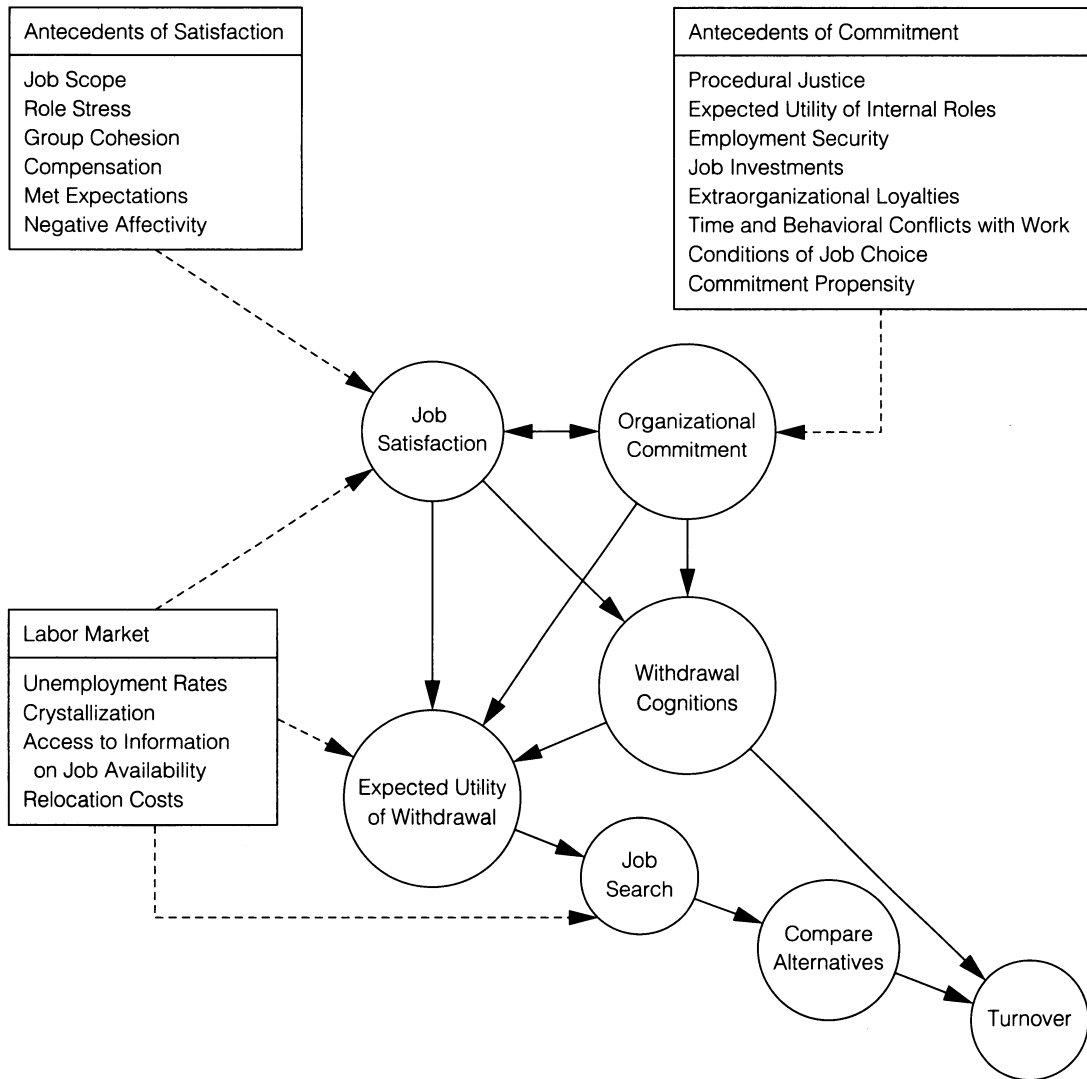
# INTEGRATION OF EMPIRICAL FINDINGS AND TURNOVER MODELS

Theoretical models of employee turnover have proliferated since March and Simon's seminal explanation (1958) of organizational participation (Hulin, Roznowski, and Hachiya 1985; Lee and Mitchell 1991, 1994; Mobley 1977; Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1981, 1986; Rusbult and Farrell 1983; Sheridan and Abelson 1983; Steers and Mowday 1981). Rather than introducing another model, our purpose here is to suggest an integrative theoretical framework that builds on contemporary formulations, incorporating constructs and construct linkages that comply with empirical findings. We review, in particular, empirical tests of prevailing theoretical accounts and meta-analyses of turnover correlates. This integrative conceptualization is shown in Figure 6-1, and in the following sections, we discuss the rationale and research for each structural linkage.

## **JOB ATTITUDES → WITHDRAWAL COGNITIONS**

Central to all conceptualizations of turnover, including the present model, is that poor attitudes stimulate the termination process. Traditional thinking (for example, March and Simon 1958; Mobley 1977; Porter and Steers 1973; Price 1977) asserts that job dissatisfaction prompts turnover cognitions, presuming that a dissatisfying work environment motivates the desire to escape (Hulin 1991). Positing that commitment to company values and goals undermines thoughts of withdrawal (Mowday, Porter and Steers 1982), contemporary theorists of turnover (Price and Mueller 1986; Steers and Mowday 1981) have incorporated organizational commitment. Strengthening this expanded set of attitudinal causes, meta-analyses found that both attitudes predict withdrawal cognitions (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Mathieu and Zajac 1990), while confirmatory factor analyses affirmed their conceptual independence (Brooke, Russell, and Price 1988; Mathieu and Farr 1991). Scholars of commitment agree, contending that commitment predicts quits more accurately than does satisfaction (Porter, Steers, Mowday, and Boulian 1974), because resignation implies a rejection of the company, not necessarily of the job which can be assumed elsewhere (Hom and Hulin 1981). Considering these theoretical rationales and facts, our model includes commitment and satisfaction as affective states initiating withdrawal cognitions.

Contemporary models embrace commitment and satisfaction, but their place in a structural network of withdrawal precursors remains controversial. Early theorists proposed that commitment mediates the influence of satisfaction on terminations (Price and Mueller 1986). Although consistent with cross-sectional recursive models (*ibid.*; Williams and Hazer 1986), more



**Figure 6-1 Integrative Model of Turnover Determinants**

rigorous tests have disputed this preliminary perspective. Most notably, panel research (Farkas and Tetrick 1989) and nonrecursive models (Mathieu 1991) found a reciprocal causality between attitudes and that satisfaction affects commitment more than commitment affects satisfaction (ibid.). Other researchers doubted full mediation through commitment, finding that both attitudes shaped quit decisions independently (Farkas and Tetrick 1989; Vandenberg and Scarpello 1990). On these grounds, our model specifies a reciprocal influence between satisfaction and commitment and their direct effects on withdrawal cognitions (Hom and Griffeth 1991).

## WITHDRAWAL COGNITIONS → TURNOVER

Orthodox thinking distinguishes various turnover cognitions, such as thoughts of quitting and search and quit intentions (see Dalessio, Silverman, and Shuck 1986; Hom, Caranikis-Walker, Prussia, and Griffeth 1992). Despite allusions to different acts (quitting and searching), withdrawal cognitions have not been empirically differentiated by recent confirmatory factor analyses (Hom and Griffeth 1991; Hom, Kinicki, and Domm 1989; Jaros et al. 1993). Indeed, several theorists posit a more parsimonious conception, maintaining that molecular withdrawal cognitions represent various facets of a global construct (Miller, Katerberg, and Hulin 1979; Steers and Mowday 1981). Based on these results and reasoning, our conceptual framework offers a general cognition of withdrawal that subsumes specific intentions to withdraw (see James and James 1989).

We agree with Lee and Mitchell (1994), Steers and Mowday (1981), and Hom and Griffeth (1991) that withdrawal cognitions can directly activate turnover. Unlike commonly held viewpoints (those, for example, of Mobley [1977] and Mobley, Griffeth, Hand, and Meglino [1979]), this direct pathway takes into consideration impulsive quitting (Mobley 1977), labor market exits by marginal drifters (Hulin, Roznowski, and Hachiya 1985; Lee and Mitchell 1994), unemployment while searching (Baysinger and Mobley 1983), relocation to distant communities (Hom and Griffeth 1991), and decisions to pursue outside activities (for example, childrearing or childbearing [Hom, Griffeth, and Sellaro 1984; Hom and Griffeth 1991]). Simply stated, this pathway from cognitions of withdrawal to quitting recognizes that many employees depending on various factors including, but not limited to, employment levels in the community, occupational demand, work orientation, and so on, may quit without securing alternative employment.

## WITHDRAWAL COGNITIONS → JOB SEARCH

Like Steers and Mowday (1981), we submit in this model that some employees deciding to quit seek other employment before leaving. This route to withdrawal deviates from the conventional tenet that employees develop turnover cognitions after seeking and comparing alternatives (see March and Simon 1958; Mobley 1977; Price and Mueller 1981; Rusbult and Farrell 1983). Indeed, growing empirical evidence refutes this sequence from search to cognitions of withdrawal. For example, Gerhart (1990), Carsten and Spector (1987), and Hom, Caranikis-Walker, Prussia, and Griffeth (1992) found that unemployment rates moderate the impact on turnover of decisions to quit. Yet if employees enter the labor market and form impressions of alternatives before deciding to quit, unemployment rates (a proxy for perceived alternatives) should *not* condition the relationship between the intention to quit and quitting. Rather, observed moderating effects suggest that employees develop intentions to quit before seeking another job. Thus,

poor job markets frustrate initial plans to quit work (weakening the relation between intentions of quitting and actually departing), whereas expanding job markets allow premeditated cognitions of withdrawal to be translated into quitting. Moreover, path analytical tests uphold this sequence: withdrawal cognitions → search → quitting (see Griffeth and Hom 1990; Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Hom and Griffeth 1991; Hom, Griffeth, and Sellaro 1984).

### **EXPECTED UTILITIES OF WITHDRAWAL → JOB SEARCH**

Adopting the rationale of Mobley (1977) and Fishbein and Ajzen (1975), our model posits that prospective quitters evaluate the perceived costs and benefits of quitting and job seeking before pursuing alternatives. Likewise, theories of alternative responses to job dissatisfaction specify that the expected utility (perceived consequences) of those responses dictate their choice (Hulin 1991; Rosse and Miller 1984). Empirical research repeatedly finds that the expected utility of quitting affects terminations (Hom and Hulin 1981; Prestholdt, Lane, and Mathews 1987) and that the expected costs of leaving inhibit a number of exit responses, including job seeking and quitting (Rusbult, Farrell, Rogers, and Mainous 1988; Withey and Cooper 1989).

Straying from popular beliefs of separate expected utilities for job search and quitting (see Hom, Griffeth, and Sellaro 1984; Laker 1991; Lee 1988; Sager, Varadarajan, and Futrell 1988; Steel, Lounsbury, and Horst 1981), we argue that these utilities reflect different aspects of a broader construct of expected utility of withdrawal. Because quit and search decisions are often made simultaneously (Hom and Griffeth 1991), we reason that these expected utilities are inextricably codetermined (see Mobley 1977). This view corresponds with emerging formulations that categorize diverse actions to avoid the job—namely, transfer, job seeking, and turnover—into a general response family, namely exit (see Farrell 1983; Rossé and Hulin 1985; Rusbult et al. 1988; Withey and Cooper 1989). Similarly, Hulin (1991) advocates a general adaptation construct that underlies diverse withdrawal behaviors, including exits. Upholding our global conception, Hom and Griffeth (1991) found in a confirmatory factor analysis that the expected utilities of searching and quitting represented the same latent factor.

Consistent with Mobley (1977) and Steers and Mowday (1981), we propose that positive expected utility of withdrawal stimulates job seeking. After uncovering alternatives, job seekers would then compare them against their present position. Should this comparison favor an alternative, the employee would choose this job and quit. In line with this argument, empirical data substantiated a sequence wherein job search precedes job comparisons (Hom, Griffeth, and Sellaro 1984; Hom and Griffeth 1991; Lee and Mowday 1987; Steel, Lounsbury, and Horst 1981).



## OTHER EMPIRICAL SUPPORT FOR STRUCTURAL NETWORK

Thus far, we discussed empirical support for segments of the proposed nomological network. More direct evidence comes from Hom and Griffeth (1991) and Griffeth and Hom (1992), who completely validated the structural links relating attitudes to quits with structural equation modeling (SEM) procedures. Moreover, meta-analyses of turnover correlates lend greater support to the general causal sequence embedded within our framework: job attitudes lead to withdrawal cognitions, which lead to quitting. Although varying in sample compositions and corrections for statistical artifacts, separate meta-analyses still identically ranked these factors in predictive strength within the same review: Withdrawal cognitions ( $r = .30$  [present meta-analysis];  $r = .45$  [Tett and Meyer 1992])—or, more specifically, quit decisions ( $r = .35$  [present meta-analysis];  $r = .36$  [Hom, Caranikis-Walker, Prussia, and Griffeth 1992];  $r = .50$  [Steel and Ovalle 1984])—predicted quitting more accurately than did satisfaction ( $r = -.19$  [present meta-analysis];  $r = -.18$  [Hom, Caranikis-Walker, Prussia, and Griffeth 1992];  $r = -.28$  [Steel and Ovalle 1984];  $r = -.24$  [Tett and Meyer 1992]) and commitment ( $r = -.18$  [present meta-analysis];  $r = -.38$  [Steel and Ovalle 1984];  $r = -.35$  [Tett and Meyer 1992]).

## DETERMINANTS OF SATISFACTION

Using a framework established by Mobley, Griffeth, Hand, and Meglino (1979) and Price and Mueller (1981, 1986), we also identify exogenous determinants whose effects on terminations are mediated by job attitudes. Based on theory and research, we classify separate antecedents for job satisfaction and organizational commitment. Given their different foci, we expect specific aspects of the job to shape job satisfaction, whereas organizational characteristics should affect commitment. This taxonomic premise is strengthened by Brooke, Russell, and Price (1988) and Mathieu and Farr (1991) who showed that antecedents correlated differently with commitment and satisfaction. They found that the antecedents correlated with both attitudes, but their analyses did not control interdependency between these attitudes (Mathieu 1991). Given correlated attitudes, a determinant of one attitude may spuriously correlate with the other attitude (Mathieu and Zajac 1990). While we concede the possibility of multiple effects on both attitudes, our taxonomic description of attitudinal causes nevertheless delineates for heuristic purposes the antecedents that most influence a given attitude.

**Job Complexity** The formulation states that emotional responses to tasks on the job emanate from facets of job complexity. This proposition is derived from theories of task characteristics and holds that core dimensions on the job, such as the identity of the task, its significance, and degree of

autonomy, mold job affect by instilling meaning, personal responsibility for outcomes, and knowledge of accomplishments into the work (Hackman and Oldham 1980). Empirical research has established that complexity in a job enhances satisfaction (Fried 1991; Loher et al. 1985) and retention (Griffeth 1985; Katerberg, Hom, and Hulin 1979; McEvoy and Cascio 1985). Still, our proposition, that satisfaction primarily translates the effects of a job's scope into commitment or withdrawal cognitions, remains untested.

**Role stress** Role stress—namely, ambiguity and conflict in work roles—should diminish job satisfaction. That hypothesis originates from theories of role stress, which submit that ambiguous or conflicting role demands evoke role strain (Kahn, Wolfe, Quinn, Snoek, and Rosenthal 1964; Netemeyer, Johnston, and Burton 1990). Many studies affirmed that role stress fosters dissatisfaction and resignations (Fisher and Gitelson 1983; Jackson and Schuler 1985; Lyons 1971). Affirming satisfaction mediation, recent SEM analyses demonstrated that role stress boosts withdrawal cognitions through job satisfaction (Klenke-Hamel and Mathieu 1990; Netemeyer, Johnston, and Burton 1990).

**Group Cohesion** Apart from attributes of the work, cohesion among the work group provides job satisfaction, thereby stabilizing employment. Organizational demography theory offers an explanation for our claim (Pfeffer 1983). Demographically dissimilar members of a work group hold different values and outlooks, which lessen mutual attraction and communication within the group. An outcome is weakened cohesion in the group and exacerbated strife, stimulating exits. In line with this supposition, Jackson et al. (1991), McCain, O'Reilly, and Pfeffer (1983), and Tsui, Egan, and O'Reilly (1992) found higher quit rates (or more numerous decisions to quit) in demographically diverse work groups, and O'Reilly, Caldwell, and Barnett (1989) discovered that dissension within heterogeneous groups accelerates the departure of its members. Other research adds credence to our proposition, indicating that satisfaction or integration with coworkers lengthens job retention (Cotton and Tuttle 1986; Price and Mueller 1981, 1986).

**Compensation** Our theory shares the ubiquitous view that compensation (and compensation satisfaction) builds job longevity through job satisfaction (Hulin, Roznowski, and Hachiya 1985; Price and Mueller 1981 1986). Borrowing from social-exchange and equity models, many authors on turnover insist that inadequate financial reward for employees' contributions to the firm engenders feelings of inequity that, in turn, induce the employees to leave (Hulin, Roznowski, and Hachiya 1985; Rusbult and Farrell 1983). Management and labor-economic studies support this contention, finding that low pay or dissatisfaction about pay create job dissatisfaction (Ironson, Smith, Brannick, Gibson, and Paul 1989; Lawler 1971,

1981) and turnover (Blakemore, Low, and Ormiston 1987; Cotton and Tuttle 1986; Mobley 1982a; Wilson and Peel 1991). Motowidlo (1983) and Price and Mueller (1981, 1986) have directly validated our mediational sequence: pay → satisfaction → quitting.

**Leader-Member Exchange** We further contend that poor leader-member exchange (LMX) may instigate dissatisfaction, and hence, turnover (Graen and Scandura 1986). According to Graen and his associates (Dansereau, Graen, and Haga 1975; Graen and Scandura 1986), superiors develop more effective working relationships (trust, for example) with select subordinates (high LMX). Leaders exchange various incentives, such as latitude on the job and influence on decision making, beyond the formal employment contract with these select employees. In return, high-LMX subordinates reciprocate with higher contributions toward the functioning of the unit. This mutual interpersonal exchange fosters, in turn, the subordinates' morale and loyalty. Empirical data (Ferris 1985; Graen and Ginsburgh 1977; Graen, Liden, and Hoel 1982; Graen, Novak, and Sommerkamp 1982) have borne out the validity of this notion. Empirical findings on the satisfaction mediation of LMX effects are equivocal and scant. Ferris (1985) and Graen, Liden, and Hoel (1982) found that partialling out overall job satisfaction did not negate correlations between LMX and turnover, which suggests that satisfaction does *not* fully mediate LMX's influence. Yet Williams and Hazer (1986) upheld a causal network wherein leader consideration (an aspect of LMX) bolsters satisfaction and thus decisions to stay.

**Met Expectations** We agree with Porter and Steers' theory (1973) of met expectations, which declares that new employees become dissatisfied (and hence withdraw) if the job refutes their initial expectations. Supporting this view, Wanous et al. (1992) found by meta-analysis, that met expectations do strengthen satisfaction and retention, but affect the former more. Recent SEM tests more directly verified that job affect translates the effects of met expectation into exits (Bacharach and Bamberger 1992; Farkas and Tetrick 1989; Hom et al. 1993).

**Negative Affectivity** Negative affectivity—a personality predisposition reflecting the chronic tendency to evaluate oneself, others, and situations (such as, work settings) unfavorably—may shape feelings toward the job (Staw, Bell, and Clausen 1986). Although empirical work confirmed that negative affectivity arouses dissatisfaction (Staw, Bell, and Clausen 1986) and decisions to quit (George 1989), Judge discovered (1993) that this personality syndrome conditions the way in which dissatisfaction develops into exits. Dissatisfaction more readily evoked resignations among *positively* affective employees than among negatively affective ones. Happy employees are, presumably, more likely quit a bad job—which provides a sharp contrast with other, pleasant aspects of their lives; unhappy employees do not view a bad job as anything

unusual. Given their inclination toward disparaging their jobs, we would expect negatively affective employees to feel job dissatisfaction more readily, but positively affective employees to abandon poor jobs more promptly.

## DETERMINANTS OF COMMITMENT

***Procedural Justice*** Our conceptualization further states that procedural justice—that is, fair procedures for allocating rewards in the organization—should underpin commitment to a company and thereby bolster participation in the organization (Folger and Greenberg 1985; Folger and Konovsky 1989). This hypothesis is based on Folger and Konovsky's rationale (1989) that procedural equity instills confidence in the employees that their employers will distribute rewards fairly in the long run. Lacking faith in the reward system, employees would not commit themselves to the firm and so discontinue their careers there. Supporting this perspective, Folger and Konovsky (1989) documented that an equitable distribution of pay raises strengthens bonds of loyalty between employees and company. Relatedly, Miceli, Jung, Near, and Greenberger (1991), using SEM analysis, validated a causal pathway in which fairness in the pay system improves satisfaction, which, in turn, reduces intentions to quit.

***Expected Utility of Internal Roles.*** Prospects for attaining desirable work roles inside a company may engender commitment to the firm and stability (Mobley 1982a). The expectation of assuming a desirable position inside the firm—the “expected utility of internal roles,” such as promotion—may explain, as Mobley and his associates (1982a; Mobley et al. 1979) postulated, why some dissatisfied employees do not quit. Similarly, Hulin, Roznowski, and Hachiya (1985) suggested that “efforts to change the work situation”—through transfers, promotions, or demotions—represent alternative ways to leave an unpleasant job, a formulation that thus implies that successful changes of job within the organization reduce termination decisions (Jackofsky and Peters 1983b).

Various streams of research corroborate commitment-binding effects of attractive roles within the firm. Several empirical studies reveal that lack of promotion underlies decisions to quit (Cotton and Tuttle 1986) and weakens company commitment (Mathieu and Zajac 1990). Although specifying other mediators as well, recent SEM tests also support a basic pathway from promotions to commitment to turnover (Griffeth and Hom 1990; Price and Mueller 1986). Hom, Kinicki, and Domm's (1989) confirmatory factor analysis did not, however, distinguish between the expected utility of other internal roles and job satisfaction. Considering its prominence in modern thought (see, for example, Hulin 1991; Mobley, Griffeth, Hand, and Meglino 1979), the construct of the expected utility of internal roles nonetheless warrants additional research on its explanatory power.

**Employment Security** Employment security may be a primary base for commitment. We build this contention on Ashford, Lee, and Bobko's (1989) reasoning that employees who perceive their companies as unreliable in carrying out personnel obligations would lose trust in and commitment to companies. Subscribing to this view, Kerr and Slocum (1987) described an employee's commitment to the firm as an exchange for the firm's long-term commitment to the individual: job security. Observers of Japanese firms widely claim that the venerated loyalty and productivity of Japanese workers stem from the promise of lifetime employment in corporations (Lincoln 1989; Lincoln and Kalleberg 1985; Marsh and Mannari 1977). Ashford, Lee, and Bobko (1989) discovered that employees who fear layoffs felt less committed to the employer and planned to quit, and Davy, Kinicki, and Scheck (1991) documented that feelings of insecurity about the job weakened commitment and decisions to stay among survivors of corporate layoffs.

**Job Investments** Our framework also recognizes job investments, such as non-transferable pension benefits, job-specific training, and seniority perks, as an essential basis for organizational commitment and retention. Theorists on turnover suggest that turnover may be deterred by the fear of losing one's job investments (Mobley 1977; Rusbult and Farrell 1983), and that such fears are the basis for the well-supported association between job tenure and turnover (Cotton and Tuttle 1986; Mobley 1982a). Researchers on commitment similarly conceive of compliance or calculative commitment as identification based on extrinsic inducements (Mathieu and Zajac 1990; Meyer, Allen, and Gellatly 1990; Meyer, Paunonen, Gellatly, Goffin, and Jackson 1989; O'Reilly and Chatman 1986), an association originating from Becker's side-bet notion (1960). In this form of commitment, employees become bound to a firm because they have a personal investment in it and fear losing those investments (Mathieu and Zajac 1990). Supporting this investment factor, turnover studies found that the perceived costs of quitting reduced the number of resignations (Hom, Griffeth and Sellaro 1984; Lee 1988; Rusbult and Farrell 1983; Steel, Lounsbury, and Horst 1981), and Mathieu and Zajac's meta-analysis (1990) found calculative commitment to be inversely associated with withdrawal intentions and actions.

**Extraorganizational Loyalties** Outside loyalties represent another antecedent of commitment. Theorists of turnover contend that competing commitments, such as professionalism and family responsibilities, jeopardize loyalty to the company (Mobley 1982a; Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1981, 1986; Steers and Mowday 1981). Indeed, psychological attachment to outside pursuits represents a fundamental idea behind several conceptions of influences other than work (Lee and Mowday 1987; Price and Mueller 1981, 1986). In a similar vein, scholars on professionalism have long maintained that the loyalty of professionals to their occupation can interfere with loyalties to the company because of conflicting values and norms (Dean, Ferris and Konstans 1988; Raelin 1986; Von Glinow 1988). To illustrate,

Kramer (1974) observed that nursing school graduates are often disheartened when a hospitals' norms of efficiency and bureaucratic control interfere with their ability to serve patients according to professionally prescribed standards.

Still, empirical findings failed to provide evidence for the presumed detrimental effects of competing attachments outside work on job incumbency (Blegen, Mueller, and Price 1988; Lee and Mowday 1987; Price and Mueller 1981, 1986). Contrary to sociological observations, empirical investigations regularly find that professional and organizational commitments do not necessarily clash and that professionalism is inversely related to turnover (Aranya, Pollock, and Amernic 1981; Curry, Wakefield et al. 1985; Ferris and Aranya 1983; Mathieu and Zajac 1990; Price and Mueller 1981; Morrow and Wirth 1989).

Similarly, common demographic proxies of family responsibility, such as marital status and family size, have not shown clear-cut effects on turnover (Mobley 1982a; Mobley, Griffeth, Hand, and Meglino 1979; Morita, Lee, and Mowday 1993; Muchinsky and Tuttle 1979; Porter and Steers 1973). Rather, these demographic effects may vary with gender and family composition. For example, family size and marital status may influence women to quit their jobs, because they traditionally carry the primary family obligations, but inhibit turnover among men, who are traditionally the primary family breadwinners (see Mobley 1982a; Porter and Steers 1973). In a similar fashion, family composition displayed inconsistent effects. Quite likely, conflicting definitions of family size may underlie their variable effects. The size of the *nuclear* family (especially, the number and presence of young children) accelerates turnover among women, whereas the size of the *extended* family (comprising relatives) in the community prolongs company tenure for both sexes (Blegen, Mueller, and Price 1988; Donovan 1980; Gerson 1985; Huey and Hartley 1988; Price and Mueller 1981). In summary, simple demographic indexes often misrepresent family responsibility. Their extensive usage suggests an oversimplification of their meaning because marital status and family size may historically symbolize family obligations for women (a symbol that is, however, changing as more women go out to work), but not for men.

To establish the effects of family obligations more firmly, future research must develop more direct measures of them or develop more valid demographic indices showing how they reflect family burdens (see Blegen, Mueller, and Price 1988). For example, Kossek (1990) recommends measuring the configuration of children's ages rather than merely counting the number of children (infants require a different level of care from toddlers, who are different from school-age children, and so on) and the configuration of employment in the household rather than marital status (single parents have greater family responsibilities than do parents in traditional nuclear families).

***Time and Behavior Conflicts*** Based on our limited review, we contend that studies of turnover overlook interrole conflict—the interference from work

with commitments outside the organization (Hom and Griffeth 1991; Mobley 1982a; Ralston and Flanagan 1985). Conflict between the job and nonjob domains may arise from conflicts of time or demands for incompatible behavior (O'Driscoll, Ilgen and Hildreth 1992; Zedeck and Mosier 1990). Thus, competing loyalties will speed turnover (and, perhaps, departure from the work force) only if work schedules interfere with participation in outside activities (Gerson 1985; Hom and Griffeth 1991) or if behaviors at work conflict with values outside the organization. These two sources of job conflicts parallel the traditional dimensions of role stress: role overload (insufficient time to do the job) and conflict between the person and the role (a perceived incongruency between role requirements and personal values) (Miles 1976). Although still scarce, there is mounting evidence to show that conflict between the job and endeavors outside the organization (including those generated by professional standards; Aranya and Ferris 1983 promote withdrawal cognitions and weaken commitment to the organization (Bacharach and Bamberger 1992; Hom, Kinicki, and Domm 1989). More revealing, a recent path analytical test confirmed that when time spent working is excessive to the point that the job interferes with other activities, commitment is thereby diminished (O'Driscoll, Ilgen, and Hildreth 1992).

Contradictory findings about the effects of attachments outside the organization on withdrawal may be explained by the existence of interrole conflicts. That is, employees dedicated to other endeavors, such as childrearing, leisure, or community service, are motivated to quit only if their present work hours are excessive or inconvenient enough to hamper or preclude their involvement in those undertakings (Mobley 1982a). Similarly, professionals committed to their occupation will more readily change jobs if they cannot apply professional standards in their current job duties (see Hom, Griffeth, Palich, and Bracker 1993; Huey and Hartley 1988). All told, neglected time-based or behavioral conflicts may moderate the effects of extraorganizational interests on turnover. To comprehend extraorganizational influences thoroughly, future investigations should consider, not only conflicts between work and family, but also other pursuits, such as leisure and involvement in community activities (O'Driscoll, Ilgan, and Hildreth 1992; Hom, Kinicki, and Domm 1989).

***Initial Job Choices*** We further submit that circumstances surrounding the initial decision to join an organization underpin commitment to that organization. Theorists on commitment argue that forces binding newly hired employees to their initial decisions to join a company later induce company loyalty by way of a retrospective rationality (Mowday, Porter, and Steers 1982; Salancik 1977). Previous studies have established that newcomers making irrevocable, free, and public choices about a job become psychologically attached to their firms (Kline and Peters 1990; Lee, Ashford, Walsh, and Mowday 1992; Meyer, Bobcel, and Allen 1991; O'Reilly and Caldwell 1981).

*Propensity to Commitment* Following Mowday, Porter, and Steers (1982), we include the predisposition of individuals to form organizational commitment. Several studies on socialization disclosed that some personal characteristics predispose new employees to develop company attachments. Most persuasively, Lee et al. (1992) recently assessed the propensity for commitment of new recruits to a military academy, measuring their desire for a military career, familiarity with the military, confidence of success at the academy, preentry expectations, and job-choice influences. A composite of these personal traits and other factors predicted the cadets' initial and subsequent commitment to the military academy.

## LABOR AND MARKET DETERMINANTS

Last, we observe that job-market determinants—encompassing various factors as suggested by different theorists—exert multiple, complex effects on the termination process (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Steel and Griffeth 1989). Like Hulin, Roznowski, and Hachiya (1985), we posit labor-market influences on job satisfaction, asserting that attractive perceived alternatives lower the valuation of the present job (the “greener grass” syndrome; see Schneider 1976). We adopt Mobley’s reasoning (1977) that unemployment rates, especially rates in the community or in a specific occupation (Hulin, Roznowski, and Hachiya 1985), diminish the expected utility of job seeking. Job-market factors (notably, relocation costs) enter into the mental calculations of the costs and benefits of quitting (Hom and Griffeth 1991; Steel and Griffeth 1989) as do job investments via commitment. Besides this, labor-market antecedents may shape the course of the job search (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Mobley, Griffeth, Hand, and Meglino 1979; Steers and Mowday 1981). Limited information about available positions or low vacancy rates may undermine search for a job, preventing job seekers from finding suitable alternative employment.

Unfortunately, research studies find that current measures of perceived alternatives poorly or inconsistently predict turnover or moderate quit determinants (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Hulin, Roznowski, and Hachiya 1985; Steel and Griffeth 1989). Explaining disappointing findings, Griffeth and Hom (1988a) and Steel and Griffeth (1989) maintained that common scales inadequately represent the complex, multifaceted employment market. By comparison, objective indices of joblessness have moderated the impact of attitudes and quit decisions and directly affected quits (Carsten and Spector 1987; Gerhart 1990; Hom, Caranikis-Walker, Prussia, and Griffeth 1992). We still recommend the development of measures to assess varied perceptions of the labor market directly, instead of relying on indirect proxies based on unemployment rates, to verify theoretical propositions about work alternatives (Steel and Griffeth 1989).

Although rooted in existing research and theory, our modest efforts at theoretical integration await further rigorous validation. Our formulation



overlooked many explanatory constructs, among them job performance (Steers and Mowday 1981) and attempts to change the work role or switch to other internal roles (Hulin, Roznowski, and Hachiya 1985) and intervening processes, such as comparison of alternatives based on compatibility of images (Lee and Mitchell 1994) and the discontinuous progression of job withdrawal (Sheridan and Abelson 1983). Thus, we invite others to refine and elaborate our conceptual framework. Perhaps a theory initiates its prime legacy rather than its ultimate validity.



# TURNOVER AND OTHER BEHAVIORS; TURNOVER AND MALADAPTATION

In various lines of academic inquiry, researchers have examined the question of whether quitting employees behave differently from those who stay. Hulin (1991) has considered whether terminations relate to other forms of disengagement from the job. The research presumes that dissatisfied employees engage in "short-term" quits, such as absences, before leaving, or if they cannot quit, temporarily escape from aversive work conditions through absence or lateness. Other investigators, prompted by concern over whether or not effective performers resign more often than poor performers do, explored relationships between voluntary turnover and job performance (McEvoy and Cascio 1987). Recently, more complex behavioral models have emerged in which turnover is conceptualized as one of many responses to dissatisfaction or maladaptation (Hulin 1991; Hulin, Roznowski, and Hachiya 1985; Rossé and Miller 1984; Rusbult et al. 1988). Alienated employees may reduce their contributions to the job or modify work conditions before or instead of leaving. In this chapter, we review research and theory on how turnover relates to other behaviors in the work place.

## RESPONSE FAMILY OF WITHDRAWAL BEHAVIORS

Turnover is commonly viewed as belonging to a family of withdrawal behaviors that physically distance employees from unpleasant work settings. Serving a common psychological function, withdrawal actions reduce the time spent in an aversive environment and thus reduce job dissatisfaction. Different models, however, conceive of different patterns of association between termination and other acts of withdrawal (Hulin 1991; Rossé and Miller 1984). Five models of the structural relationships among withdrawal behaviors have been conceptualized.

An "independent-form" model posits that withdrawal actions are unrelated to one another because their antecedents and consequences differ (Hulin 1991; Porter and Steers 1973; Rossé and Miller 1984). Explaining their independence, Mobley (1982a) speculated that absence and turnover may not ordinarily correlate positively when, (1) one behavior arises from positive attraction rather than avoidance, (2) absence serves nonjob demands, (3) one act is constrained, (4) either occurs impulsively, (5) the job allows discretionary time away from work, (6) unused sick pay can be reimbursed when the employee leaves, or (7) absence is a safety value that reduces the chances of quitting.

A "spillover" model asserts a positive covariation among withdrawal acts because aversive jobs elicit a generic avoidance tendency that expresses

itself in manifold ways (Hulin 1991). That is, enacting one withdrawal act increases the likelihood of other withdrawal acts. Two models specify negative response covariations (*ibid.*; Rossé and Miller 1984). The “alternative-forms” version submits that withdrawal behaviors are substitutable and that environmental constraints on one behavior evoke less constrained behaviors. For example, dissatisfied employees who cannot resign because the job market is depressed may miss work more often. The “compensatory” model presumes that all withdrawal responses provide a relief valve for escaping noxious circumstances at work. If one response relieves dissatisfaction, then that response will compensate for other responses, making them unnecessary (Hulin 1991). A “progression-of-withdrawal” model posits a hierarchical response sequence ranging from minor, such as tardiness, to extreme work avoidance, that is, departure. Over time, very dissatisfied employees manifest increasingly more extreme withdrawal with frequent absences and tardiness before leaving.

### **Limitations of Empirical Evidence**

Validating a family of withdrawal responses requires evidence of their communality and mutual dependency on job dissatisfaction (revealing a shared psychological function); verifying their structural interconnections demands complex statistical tests of behavioral patterns (Hulin 1991; Rossé and Hulin 1985). Unfortunately, empirical tests are limited and plagued by methodological weaknesses (Hulin 1991). With few exceptions (Clegg 1983; Rossé 1988), research studies primarily examined quits and absenteeism, neglecting other expressions of work avoidance (Hulin 1991). The distributional properties of withdrawal acts often jeopardize the validity of statistical conclusions. Many commonly studied withdrawal behaviors occur rarely, the mean 4.7 percent absenteeism rate among American workers being a case in point (Rhodes and Steers 1990). Infrequent acts produce highly skewed and noncontinuous frequency distributions, which attenuate Pearson product-moment correlations (Bass and Ager 1991; Harrison and Hulin 1989; Hunter and Schmidt 1990a). What is more, responses whose frequency distributions are skewed in opposite directions further deflate correlations between them. In the same manner, abnormal response distributions can bias estimates of regression parameters (Harrison and Hulin 1989; Hulin 1991).

In a provocative simulation, Hulin (1991) showed how discrete, non-normal behavioral distributions undermine the corroboration of a withdrawal response family. He initially specified that continuous, normally distributed action tendencies underlie absenteeism, tardiness, and turnover and have sizable (.4 to .6) factor loadings on a latent withdrawal construct. From each normal response distribution, he derived a frequency distribution for its observed behavioral manifestation. In essence, he divided the continuum of each response propensity, using various threshold values, to produce the skewed frequency distributions typical of withdrawal acts. Then, he correlated

these observed responses and found trivial correlations (.04 to .08) between them. His demonstration also uncovered weak correlations between satisfaction and withdrawal, even though he specified satisfaction to reflect the same withdrawal construct. Hulin concluded that “empirical correlations among this sample of infrequent withdrawal behaviors with badly skewed distributions provide little information about the underlying relations” (1991, p. 474).

To overcome such distributional problems, scholars routinely aggregate data on absences or lateness over arbitrary time periods. Unfortunately, the aggregation of data over long periods of time may weaken the relevance of withdrawal determinants (Harrison and Hulin 1989). Though useful for predicting absenteeism the next day or a week later, job satisfaction on a given day may be unable to forecast absence a month later or an aggregated month’s worth of absences. Misclassifications of the voluntariness of withdrawal acts may underestimate covariation between responses for these acts supposedly voluntarily taken to relieve dissatisfaction (Hulin 1991).

### Withdrawal Responses

Given these caveats, existing research does yield tentative conclusions about a taxonomic family of withdrawal actions (*ibid.*; Rossé and Miller 1984). Inspections of the relations between satisfaction and withdrawal indicate whether responses reflect the same functional meaning of work avoidance (Rossé and Miller 1984). Sustaining this interpretation, several meta-analyses clearly established that job satisfaction (especially overall and work-content satisfaction) moderately correlates with quits (Carsten and Specter 1987; Hom et al. 1992; Steel and Ovalle 1984; Tett and Meyer 1992). Other meta-analyses found weaker but still inverse correlations between satisfaction and frequent absence (Hackett 1989; Hackett and Guion 1985; Scott and Taylor 1985). To illustrate, Hackett’s comprehensive review estimated that work and overall satisfaction correlated  $-.21$  and  $-.15$ , respectively with absences. In narrative reviews, negative but weak associations between lateness and satisfaction were addressed (Hulin 1991; Rossé and Miller 1984). Such associations are less consistent, but also less studied (Adler and Golan 1981; Clegg 1983; Rossé and Hulin 1985).

Correlations among avoidance reactions further uphold a shared behavioral family. In empirical studies, positive, modest correlations between absence and turnover and between absence and lateness are typically reported (Lyons 1972; Rossé and Hulin 1985; Rossé and Miller 1984). More revealing, Mitra, Jenkins, and Gupta’s meta-analysis (1992) established a .33 correlation between absences and terminations based on 5,316 employees from thirty-three samples. Although sparse, examinations of relations between lateness and turnover provisionally suggest weak positive correlations (Rossé and Hulin 1985; Rossé and Miller 1984). Collectively, these findings suggest that tardiness, absences, and turnover are manifestations of a general latent withdrawal trait (Hulin 1991).

## Structural Models

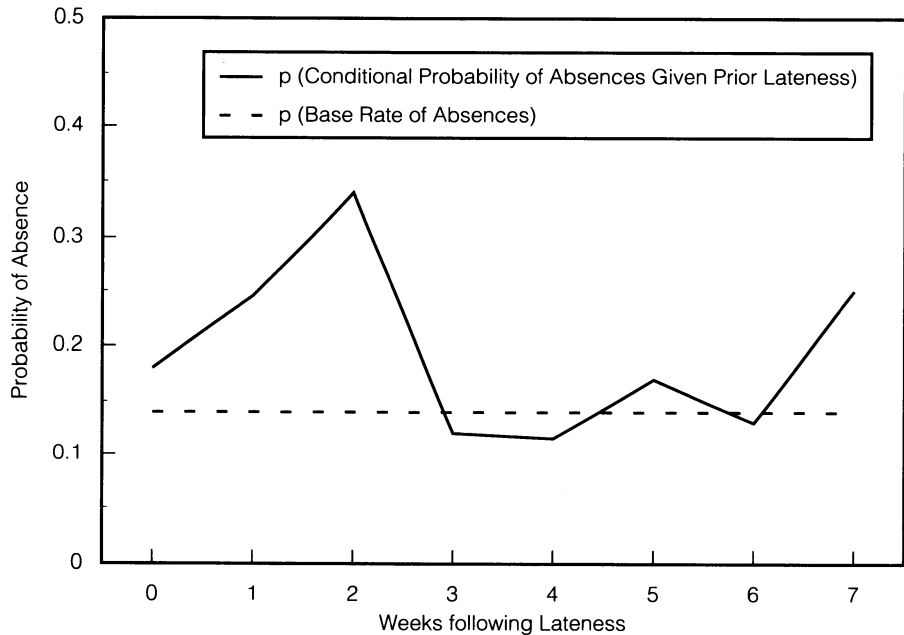
Notwithstanding their limitations, observed covariations between withdrawal responses may provide tentative evidence about the relative validity of the five structural models. The preponderance of positive response correlations disputes the independent-forms and alternative-forms models (*ibid.*). These findings, however, do not necessarily uphold the spillover model, which oversimplifies job withdrawal by overlooking labor-market determinants. For example, the spillover model implausibly implies that dissatisfied people, who cannot leave because the job market is depressed, would repress other avoidance actions. More likely, disgruntled employees will express withdrawal in other ways if they cannot resign (*ibid.*), although Markham and McKee (1991) found that absenteeism fell during rising unemployment.

Though disputing other models, first-order cross-sectional correlations between responses inadequately test compensatory and progression-of-withdrawal models. Partial correlations, holding job satisfaction constant, would correctly test the compensatory model (Hulin 1991). Positive first-order correlations also do not differentiate withdrawal progression from the spillover phenomenon (*ibid.*). Apart from ambiguity, traditional cross-sectional correlations mask the way in which withdrawal responses become progressively extreme over time (Rossé 1988). Indeed, zero or negative correlations are consistent with the progression of withdrawal if they are computed from behavioral data aggregated over short intervals (*ibid.*). For example, employees cannot simultaneously arrive at work late, miss a day's work, and quit all in a single day.

To test withdrawal progression more rigorously, Rossé examined relationships between absenteeism, tardiness, and turnover on a weekly basis rather than between their aggregated forms. He collected weekly response data on sixty-three hospital employees for seven weeks and computed the conditional probability of a subsequent response, given the antecedent response. The existence of progressive avoidance is illustrated in Figure 7-1: Employees have a higher conditional probability (.34) of being absent if they had been late even once during the previous two weeks, the absence base rate being .14. Employees who missed work twice in one week are more likely to have resigned two weeks later, a finding that is shown in Figure 7-2. Indeed, 40 percent of those absent twice in one week quit within two weeks. Likewise, employees who were late twice or more in a week were also more likely to have quit two weeks later. In summary, Rossé's provocative findings lend impressive support to the progression-of-withdrawal model.

## Research Evaluation

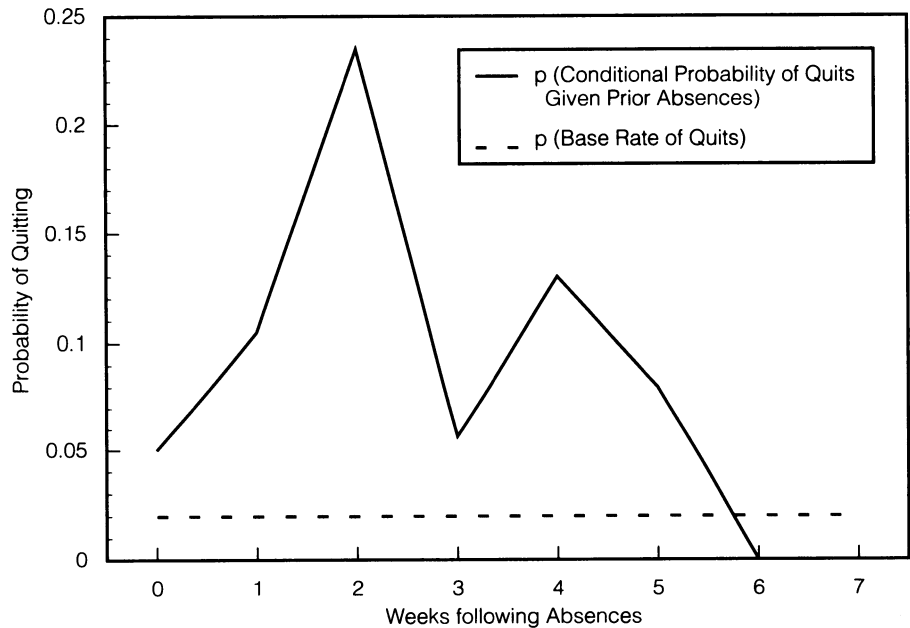
While encouraging, the empirical evidence reviewed above only partially affirmed a withdrawal response family. Yet scholars of turnover have long envisioned other withdrawal actions besides absence, lateness, and turnover (Farrell 1983; Hulin 1991; Mobley 1982a). Rossé and his col-



**Figure 7-1 The Conditional Probability of Absence Following a Single Episode of Lateness. (J. Rosse, Relations among lateness, absence, and turnover: Is there a progression of withdrawal. *Human Relations*, 41 (1988): 523.)**

leagues (Rossé & Hulin 1985; Rossé and Miller 1984) suggested lengthy work breaks, leaving work early, or psychological withdrawal (drug taking, daydreaming); Hanisch and Hulin (1990) in light of the legal abolition of mandatory retirement, advanced voluntary retirement as a candidate for this behavioral family. More research on other withdrawal behaviors is warranted if we are to specify completely the domain of the behavioral withdrawal construct.

Although current evidence upholds the progression-of-withdrawal model more than it does competing structural models, this model and the alternatives merit more rigorous investigation. To handle their unusual distributional properties, survival analysis should be extended to analyze dynamic relationships among withdrawal acts (Fichman 1988; Harrison and Hulin 1989). Survival analysis may find that survival functions on company tenure may decline more precipitously over time for the frequently absent employees than for rarely absent employees (see Morita, Lee, and Mowday, 1993). Though the subject is controversial (Bass and Ager 1991; Williams 1990), Hulin (1991) and Hunter and Schmidt (1990a) have suggested that correlations involving turnover and other dichotomous acts might be corrected for extreme base rates and dichotomy to improve their strength. Assessments, made by the



**Figure 7-2 The Conditional Probability of Turnover Following Multiple Absences.** (J. Rosse, *Relations among lateness, absence, and turnover: Is there a progression of withdrawal.* *Human Relations*, 41 (1988): 523.)

employees themselves, of their withdrawal actions (to *supplement* personnel records) may improve accuracy in classifying the voluntariness of actions and reasons for their occurrence (see Rossé and Hulin 1985). Structural models may hold up better when involuntary responses from statistical analyses are discarded as the models presume that all acts of avoidance are voluntary.

## TURNOVER AND PERFORMANCE EFFECTIVENESS

Many researchers into turnover have explored the relationship between turnover and job performance (McEvoy and Cascio 1987). Their interest arises from growing doubts that turnover is necessarily a disadvantage. Organizational scientists realize that whether or not turnover impairs company performance depends on who quits (Boudreau and Berger 1985). The exodus of effective performers would be harmful. But when marginal or poor employees leave voluntarily, the firms benefit if they can find more productive replacements fairly easily and inexpensively (Hollenbeck and Williams 1988; Mobley 1982a). Beyond this practical concern, modern theories of turnover have incorporated job performance as an additional determinant to improve explanatory power (Jackofsky 1984; Steers and Mowday 1981).

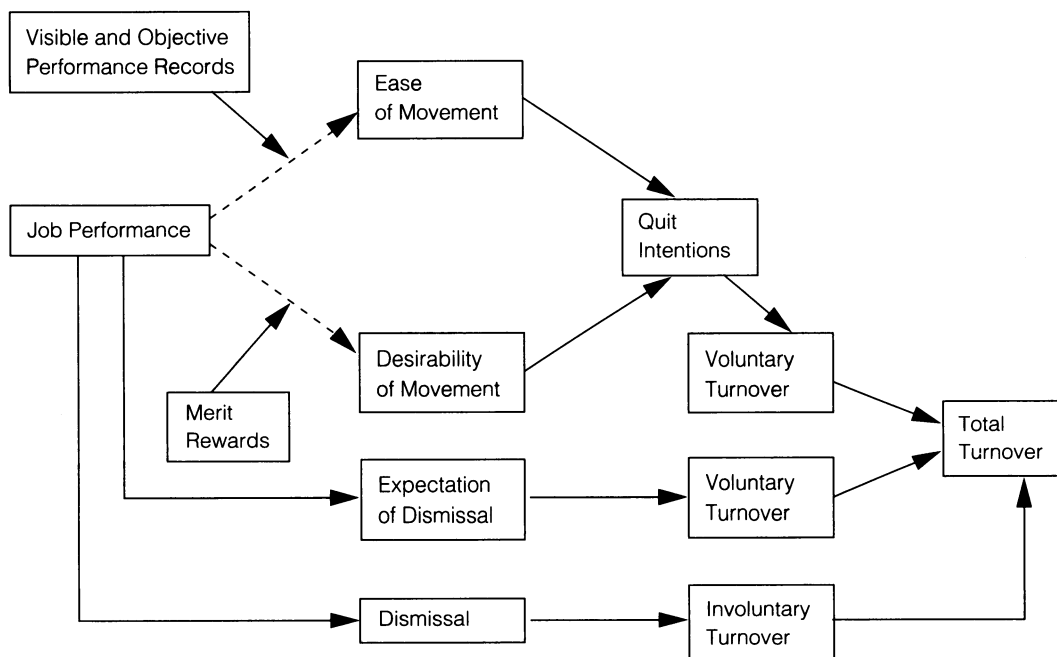


The association between performance and turnover has drawn much academic inquiry. Summarizing this growing literature, three meta-analyses concluded that job performance and voluntary turnover correlate negatively, albeit modestly (Bycio, Hackett, and Alvares 1990; McEvoy and Cascio 1987; Williams and Livingstone, 1994). The most comprehensive meta-analysis, cumulating data from 15,138 employees from fifty-five samples, estimated that work effectiveness correlated  $-.16$  with voluntary exits (Williams and Livingstone, 1994). *Marginal* performers voluntarily quit more often than do high performers. Not surprisingly, job performance correlates strongly with involuntary quits (Bycio, Hackett, and Alvares 1990; McEvoy and Cascio 1987). To illustrate, Bycio and fellow researchers, studying ten firms employing a total of 2,744 employees, reported a  $-.52$  correlation between involuntary terminations and performance. Correlations between voluntary departures and performance were generally negative, but the meta-analyses further revealed that positive correlations are possible: Superior performers more readily quit under some circumstances (Bycio, Hackett, and Alvares 1990; Williams and Livingstone, 1994).

Beyond empirical demonstrations, theorists tried to explain the psychological mechanisms responsible for associations between performance and exit. Jackofsky (1984) proposed the most elaborate account, depicted in Figure 7-3. Drawing from March and Simon (1958), she reasoned that job performance affects turnover (via quit decisions) through desirability and perceived ease of movement. The availability of rewards that depend on performance determines how job performance translates into the desire to change jobs. Incentive systems distribute more rewards to superior performers, making them more satisfied and less anxious to leave. Merit-pay schemes drive out marginal performers, who receive fewer incentives and feel more dissatisfied about their rewards. Effective performers feel short-changed when their rewards are not commensurate with their relatively large contributions to the job. Noncontingent reward systems definitely make them think about changing jobs.

Its impact on desires to move does depend on available incentive pay, but performance invariably bolsters ease of movement according to Jackofsky (1984). Owing to personal achievements (and greater skills and ability), effective workers can find alternative employment more easily than their ineffective counterparts can. Jackofsky also theorized that effectiveness in work decreases involuntary separations. Most likely, poor performance eventually leads to dismissals or layoffs. Indeed, marginal performers may decide to “voluntarily” resign rather than face such sanctions.

Jackofsky’s model has prompted several investigations. Most scholarly inquiries tried to verify her prediction that the relationship between performance and overall turnover (including voluntary *and* involuntary exits) is curvilinear: poor and good performers quit more frequently than average performers do. Supposedly, ineffective performers are more likely to be fired or to expect to be dismissed, and effective performers find it easier to leave because job opportunities are plentiful for them. Moderate performers are



**Figure 7-3 Effect of Job Performance on Turnover. (E. F. Jackofsky. Turnover and job performance: An integrated process model. *Academy of Management Review*, 9 (1984): 78.)**

the least likely to leave because they do not face imminent dismissal nor do they have a plethora of job options. In an early test, Jackofsky, Ferris, and Breckenridge (1986) confirmed this U-shaped relationship between performance and quitting for accountants and truck drivers.

Summarizing eight tests, Williams and Livingstone's meta-analysis (1994) more firmly established this curvilinearity between performance and voluntary quits and that reward systems that are dependent on performance reinforce the relationship between performance and turnover, another of Jackofsky's principles. The corrected correlation between voluntary exits and performance was  $-.27$  when contingent rewards exist, but only  $-.18$  when they do not. Poor performers are most likely to resign voluntarily when firms reward accomplishments. But then they also resign more frequently than superior performers do, even without performance incentives. Jackofsky and Slocum (1987) found that good performers felt more job satisfaction and were more optimistic about job opportunities.

Recently, Schwab (1991) challenged the generality of Jackofsky's view that productive employees enjoy more job mobility than unproductive employees do. In line with Dreher's (1982) observations, he reasoned that successful incumbents in most occupations cannot objectively document their performance to inform other prospective employers of their accom-

plishments. Generally speaking, effective performers are *not* more mobile, which explains the relative scarcity of positive correlations between performance and turnover (Bycio, Hackett, and Alvares 1990; Williams and Livingstone, 1994). Nonetheless, career achievements in some professions are public or objective, facilitating job mobility for high performers. Testing this idea, Schwab (1991) examined turnover among university professors whose publications may be measured objectively and are externally visible to prospective employers—other research institutions. He found that departures among tenured faculty (who usually leave voluntarily) correlate positively (.30) with the scholars' external reputation, as indexed by the frequency with which their publications are cited by other scholars. (This latest finding is incorporated in our depiction of Jackofsky's model.)

### Research Evaluation

Although studies upheld the hypothesized U-shaped relationship between performance and turnover, further research on Jackofsky's theory should directly assess its posited mechanisms for translating the effects of job performance into turnover. Despite the theoretical significance, few studies have directly evaluated the possibility that desirability and ease of movement truly mediate between performance and voluntary exits. Such model tests assume greater urgency in the wake of Schwab's contention (1991) that ease of movement is not typically higher for effective performers (excepting university professors). Beyond model tests, additional research assessing job performance with objective measures would more definitively establish the relationship between performance and quitting. Unfortunately, most studies used supervisors' ratings (Bycio, Hackett, and Alvares 1990; Williams and Livingstone, 1994), which are subject to well-known biases (Bernardin and Beatty 1984). It may be that other mechanisms account for the covariance between job performance and turnover. For example, supervisor's affinity for a subordinate may spuriously underlie their relations (Tsui and Barry 1986): Supervisors may judge the performance of subordinates they dislike more harshly and may withhold rewards from them, prompting the subordinates to quit "voluntarily." Alternatively, relationships between performance and quitting may be illusory because negative affectivity increases quitting while contributing to poor performance evaluations. That is, negatively affective employees are more dissatisfied and thus more resign readily (George 1989, 1990). Yet they also express their dissatisfaction more visibly and thereby earn low ratings from their supervisors for poor job attitudes (Smither, Collins, and Buda 1989).

Reward systems merit more scholarly attention, given Williams and Livingstone's finding (1994) that incentive pay conditions the relationship between performance and quitting. Future research must determine if reward satisfaction and perceived distributive equity are truly behind the observed moderation by merit-pay schemes (*ibid.*). Along these lines, future replications should consider other features of merit-pay schemes and how

they might moderate relationships between performance and quitting. For instance, Zenger (1992) discovered that some companies apply contracts that most reward outstanding performers, which induce *moderate* and poor performers to leave. Consideration of different distribution formulas in incentive programs may extend Jackofsky's (1984) formulation (see Gomez-Mejia and Balkin 1992a; Milkovich and Newman 1993). Replications of Schwab's (1991) unusual discovery of positive correlations between performance and quitting with data taken from other professions that objectively track success (scientists and engineers, top executives, professional athletes), are warranted. Such verifications would further uphold Jackofsky's (1984) claim that high performers enjoy greater ease of movement.

### **TURNOVER AS ONE RESPONSE TO DISSATISFACTION**

An emerging school of thought regards turnover as simply one among many alternative responses to dissatisfaction and maintains that prevailing theories of turnover are considering surface variables instead of the behavioral patterns that represent broader theoretical constructs (Hulin 1991; Rusbult et al. 1988; Rossé and Hulin 1985). Rossé and Hulin argued that "surface behaviors should be judged on their scientific merit as an indicator of an underlying construct rather than whether they are costly, attention-getting, or popular research topics" (1985, p. 325). Such narrow perspectives also have practical drawbacks. For instance, in clinical psychology, it is held, treatments for mental-health problems that address symptoms, instead of the underlying causes, may evoke substitute symptoms. Likewise, absent knowledge about how turnover relates to other reactions to dissatisfaction, managerial interventions that reduce only resignations, such as overusing "golden handcuffs," may unwittingly trigger other dysfunctional responses (Rusbult et al. 1988). In line with this possibility, Meyer et al (1989) found that employees bound to companies by extrinsic inducements performed their jobs less satisfactorily than did those who express less calculative commitment. To overcome these shortcomings, two new theoretical approaches have emerged that conceive turnover as one of many actions that relieve dissatisfaction. Unlike simpler models of structural relations among acts of withdrawal, these integrative formulations posit a complex interdependency among broad *families* of reactions to dissatisfaction.

#### **Exit-Voice-Loyalty-Neglect (EVLN) Model**

Taking a preliminary step toward this expanded conception, Farrell (1983) developed a taxonomy of behavioral responses to dissatisfaction that includes quitting. Drawing from Hirshman (1970), he posited an exit-voice-loyalty-neglect (EVLN) model, in which he identified four classes of reaction to dissatisfaction:

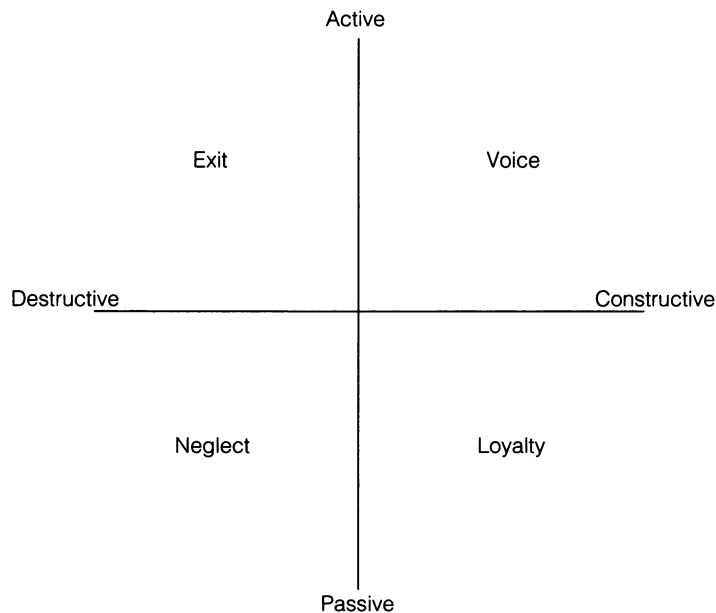
**Exit:** Quitting a job, transferring, and seeking different jobs

**Voice:** Actively improving work conditions through discussions with supervisors, solving problems, and seeking help from outside agencies

**Loyalty:** Passively but optimistically waiting for conditions to improve, such as giving public and private support to the company, waiting for change, or practicing good citizenship

**Neglect:** Passively allowing conditions to deteriorate through reduced effort, chronic absenteeism, personal business on company time, or increased error rates

To validate these behavioral constructs, Farrell wrote twelve descriptions of behavior that exemplify each response type and recruited management scholars to sort these descriptions, written on separate cards, into separate categories. By and large, expert judges sorted similar responses into the same clusters. To identify the cognitive structures behind these response clusters, Farrell then had one hundred eighty-five employees compare the similarity of EVLN acts in a multidimensional scaling (MDS) task. This MDS uncovered four behavioral clusters and suggested two dimensions—passive and active and destructive and constructive—differentiating those clusters. A simplified typology of the MDS findings is shown in Figure 7-4, although MDS results actually assigned acts of loyalty to the passive/destructive quadrant.



**Figure 7-4** Typology of responses to Dissatisfaction. (D. Farrell, “Exit, voice, loyalty and neglect as responses to job dissatisfaction: A multidimensional scaling study.” *Academy of Management Journal*, 26 (1983): 603.)

Thus, voice responses are active and constructive, exit behaviors are active and destructive, loyalty is passive and constructive, and neglect is passive and destructive.

In a follow-up study, Rusbult et al. (1988) extended the Rusbult-Farrell turnover model (1983) to explain EVLN choice. They proposed that dissatisfaction promotes destructive responses (exit and neglect), and satisfaction elicits constructive responses (voice and loyalty). Presumably, satisfied employees are motivated to upgrade their working conditions or be optimistic about future job improvements. Rusbult et al. further reasoned that employees heavily invested in their jobs (those with firm-specific training and unvested pensions) behave constructively: They can lose many benefits if they quit or are dismissed (because they are showing neglect). Those lacking job investments can easily afford to enact exit or neglect responses. Job opportunities increase exit or voice reactions. Having alternatives empowers employees to do something (“shape up or ship out”), freeing them from relying on their current position for employment. Without alternatives, employees can only wait passively for work conditions to improve (loyalty) or allow conditions to decline (neglect).

Rusbult et al. carried out laboratory simulations and a survey of union members to test these propositions. They found that the hypothesis holds: Job satisfaction enhances constructive responses but inhibits destructive activities. Predictably, job investments elicited constructive and suppressed destructive actions, whereas employment prospects increased exit and voice. However, job availability did not diminish neglect, contesting a popular view that neglect substitutes for exit during periods of high unemployment (Rossé and Miller 1984). Investment size most fostered voice given high job satisfaction. Quite likely, voice is a difficult, costly act performed only by heavily invested employees who are sufficiently motivated to improve their jobs.

In a panel study, Farrell, Rusbult, Lin, and Bernthall (1990) then more rigorously tested the causal assumptions behind this EVLN model. They surveyed union locals on two occasions (assessing how often EVLN responses are made and their determinants) and used cross-lagged panel correlations to infer causal direction. Their comparisons of cross-lagged correlations upheld the following hypothesized causality: Satisfaction decreases exit; investments promote loyalty; and job availability increases exit and voice. Even so, most statistical comparisons found either no lagged causal impact or even reverse causality—satisfaction reducing voice and job opportunities increasing loyalty.

Extending Rusbult et al.’s model (1988), Withey and Cooper (1989) introduced additional antecedents of EVLN choice (see Figure 7-5). They conceptualized that employees choose a particular response to dissatisfaction after considering this action’s costs, its efficacy for restoring satisfaction, and the attractiveness of the setting in which the action occurs. Basically, the perceived costliness of an act inhibits its occurrence in favor of less costly acts; its perceived efficacy for restoring satisfaction bolsters its selection. Thus, dissatisfied employees optimistic about improving work conditions prefer voice or loyalty; pessimistic people are more likely to leave or to allow circumstances

to deteriorate (neglect). Employees who are committed to the company, finding the workplace attractive, prefer to improve their working conditions through voice or loyalty rather than abandon the company or let it decline.

Withey and Cooper further theorized that employment opportunities shape EVLN choice indirectly via three immediate response antecedents. That is, job availability enhances exit and neglect by reducing their costliness (people with options do not fear losing their jobs) and job attraction (employees devalue their jobs in light of other alternatives). In turn, declining job attraction decreases voice and loyalty: Uncommitted employees do not strive to improve their working conditions. Withey and Cooper also envisioned a potential countervailing effect, wherein work alternatives *increase* voice. Conceivably, employees who can easily find employment elsewhere feel empowered and therefore less fearful of retaliation from the employer for attempting change.

Testing their model, Withey and Cooper surveyed a large college alumni population and employees of an accounting firm on two separate occasions. They adopted Farrell's scales (1983) to assess EVLN acts and operationalized most response determinants, although only exit (that is, sunk costs and job investments) and voice costs. The alumni survey findings, depicting the correlations between Time-1 antecedents and Time-2 EVLN behaviors, and the multiple correlations yielded by all Time-1 predictors, are shown in Table 7-1. Upholding the Withey-Cooper model, dissatisfied employees enacted more responses of exit and neglect than responses of voice. Predictably, the perceived costliness of exit and voice lowered their occurrence, boosting the less costly loyalty and neglect.

Employees confident about the possibility of job improvements (that is, response efficacy) preferred voice rather than exit or neglect. Committed

**Table 7-1 Correlations between Model Components and ELVN.** (M. J. Withey and W. H. Cooper, "Predicting exit, voice, and loyalty, and neglect," *Administrative Science Quarterly*, 34 (1989): 530.)

Time-1 Model Predictors	Time-2 EVLN Responses			
	Exit	Voice	Loyalty	Neglect
Exit; sunk costs	-0.21*	0.05	0.08*	0.07
Exit; investments	-0.14*	0.10	-0.14*	-0.13*
Voice costs	0.29*	-0.19*	0.27*	0.18*
Job satisfaction	-0.51*	0.20*	-0.29*	-0.35*
Optimism about change	-0.37*	0.24*	-0.25*	-0.21*
Company commitment	-0.48*	0.20*	-0.23*	-0.19*
Job alternatives	0.25*	-0.07	0.01	0.12*
Adjusted multiple $R^2$	0.26	0.05	0.13	0.12

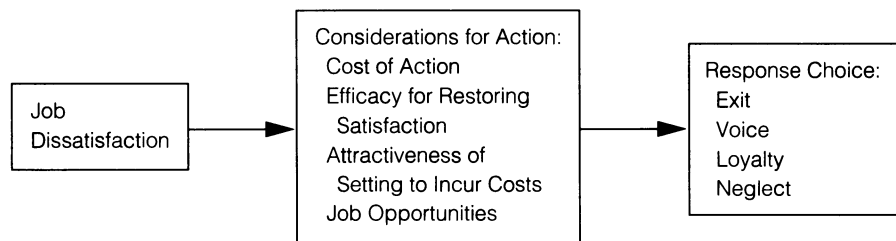
\* $p < .05$ .

employees attracted to their setting also opted for voice over exit or neglect. People with job opportunities were more likely to desert their jobs or let their jobs deteriorate; they did not, however, try to change their work conditions. Confounding model predictions, job satisfaction, optimism about improvements, and commitment *decreased* loyalty. The survey of accountants mostly replicated the findings among the alumni, albeit reporting fewer significant findings as the sample was smaller.

For additional insight, Withey and Cooper classified employees into “exiters,” “neglecters,” “voicers,” or “loyalists,” based on which EVLN response they predominantly chose. Then, they compared how those groups scored on the causal antecedents of EVLN choice. The score profiles for the four kinds of people are shown in Figure 7-6. Exiters encountered the lowest sunk costs; neglecters reported the fewest job investments. Not surprisingly, voicers did not consider voice responses as costly options and they experienced the highest job satisfaction, whereas exiters and loyalists expressed the lowest morale. Voicers expected future improvements in work conditions; exiters and loyalists felt more pessimism about change. Exiters were the least committed to their companies and believed that positions elsewhere were more attractive than their present job; voicers had the least inflated perceptions of alternative employment.

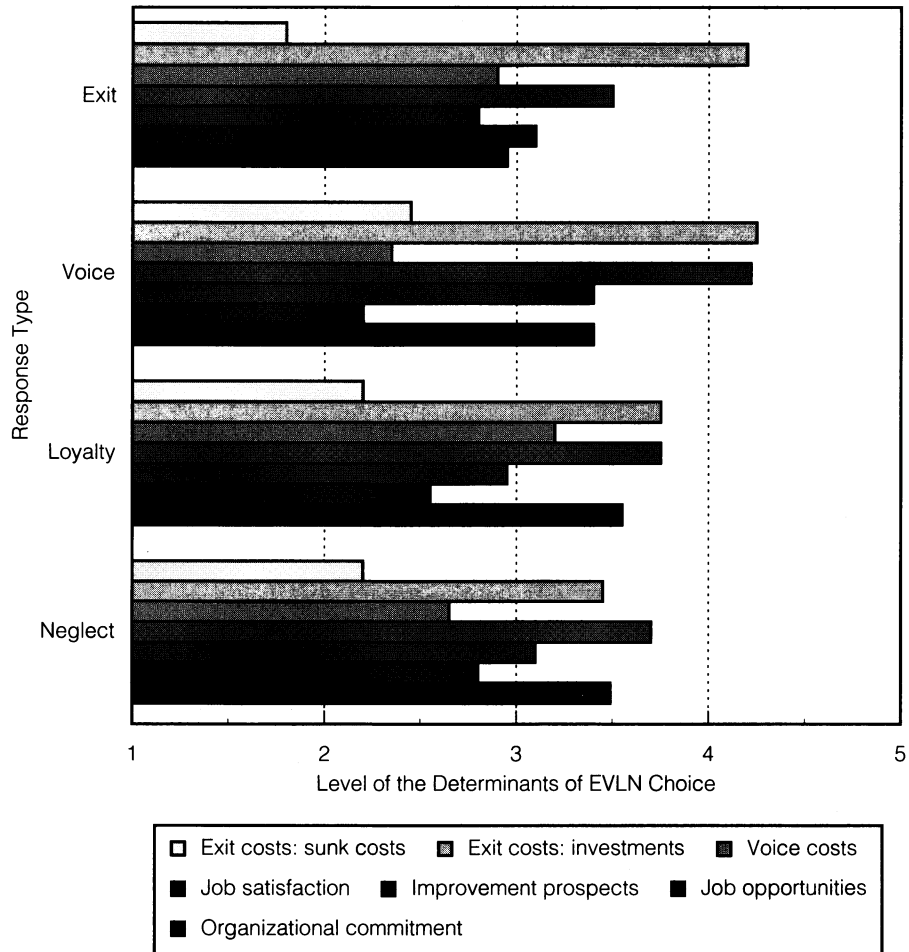
Though these findings were encouraging, other results suggest some theoretical revision of the Withey-Cooper formulation. For one, the model explained merely 5 percent of the voice variance, quite possibly omitting crucial influences on voice, such as sponsorship, interpersonal barriers, and the inertia of coworkers. Employees may feel reluctant to voice complaints unless they have a sponsor to protect them from potential retaliation (Withey and Cooper 1989). Employees may not voice complaints at all unless they believe that supervisors will listen (interpersonal barriers do not obstruct voice). Individuals may engage in costly voice actions if they feel personally responsible for solving work problems, an obligation that arises when other colleagues ignore it (the inertia of coworkers.)

Empirical tests further disputed Withey and Cooper’s predictions about the reasons employees adopt loyalty responses. Indeed, the pattern of



**Figure 7-5 Model of Choice of EVLN Response.** (M. J. Withey and W. H. Cooper, “Predicting exit, voice, loyalty, and neglect,” *Administrative Science Quarterly*, 34 (1989): 522–525.)





**Figure 7-6 Profile of EVLN Response Types.** (M. J. Withey and W. H. Cooper, “Predicting exit, voice, loyalty, and neglect,” *Administrative Science Quarterly*, 34 (1989): 531. Copyright 1989 by administrative Science Quarterly. Adapted by permission.)

correlations between antecedents and loyalty resembled that for correlations between antecedents and neglect (see Table 7-1), and the antecedent-score profiles of loyalists and neglectors closely corresponded (see Figure 7-6). These findings contradict the conventional portrait of loyalists as people who quietly support the company through hard times (Farrell 1983; Hirshman 1970). Interpreting these results, Withey and Cooper pointed out that the traditional depiction of loyalty actually embodies conflicting qualities: quiet passivity and active support for the firm. On the former measure, loyalty is indistinguishable from neglect, being a mild variant of it. Yet the latter measure—proactive loyalty—is unlike voice in that it maintains the

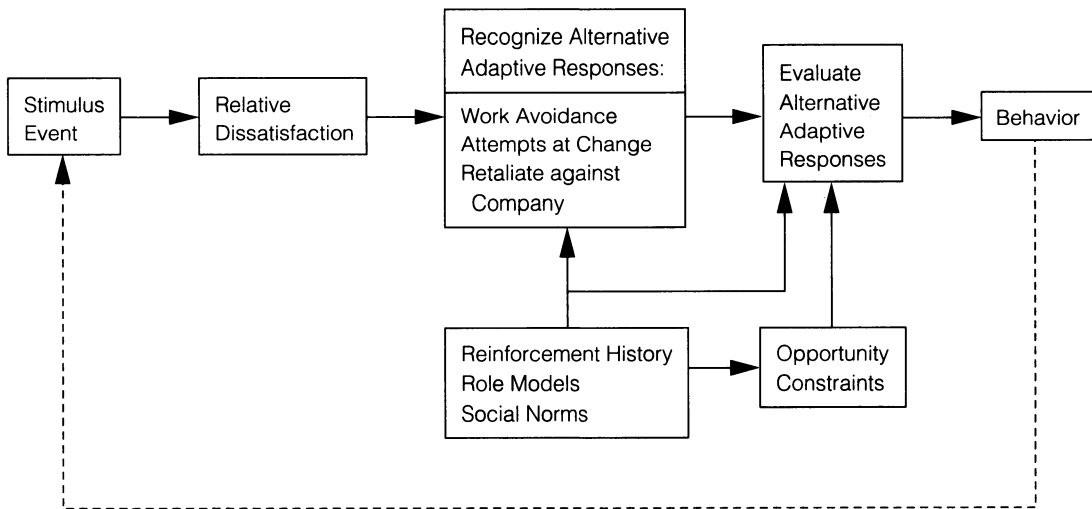
status quo, whereas voice seeks to change or overthrow existing conditions. These data likening loyalists to neglectors may imply that Farrell's loyalty scale (1983) is deficient as it omits active forms of loyalty, such as working hard to get the job done or doing things beyond the call of duty. In summary, loyalty may best be construed as a form of *proactive* action (akin to organizational citizenship) and measurement of this reconceptualization may improve the capacity of Withey-Cooper's theoretical framework to account for loyalty.

### Employee Adaptation Models

Taking a different approach, Rossé and his colleagues (Rossé and Hulin 1985; Rossé and Miller 1984) viewed job withdrawal as a more general process of adaptation to work. They defined work-role adaptation as the process by which relative dissatisfaction is reduced through behavioral or cognitive mechanisms. According to their conceptualization (shown in Figure 7-7), stimulus events precipitate an evaluation of the job. The resulting evaluation may bring about *relative* dissatisfaction when one learns that the current state of affairs is deficient and can be improved. A dissatisfied employee then considers various remedial strategies: work avoidance, which includes behavioral withdrawal (putting physical distance between oneself and the work setting), psychological withdrawal (reducing work awareness through daydreaming, diversions, or substance abuse), and retaliation against the firm, or attempts to change the current situation. The unhappy employee chooses an adaptive behavior to end the source of relative dissatisfaction or to alter this source constructively.

Rossé and his colleagues conceived four determinants of adaptive responses. (1) Past reinforcement history guides response selection. People who previously performed certain responses learn about their relative utility and later choose those responses having maximum utility. (2) Individuals may observe role models and emulate actions that successfully resolved past dissatisfaction. (3) Social norms prohibiting or proscribing certain actions in a given context may dictate adaptive choices. (4) Perceived constraints on behaviors (both personal and environmental barriers) influence adaptive responses. Simply put, employees do not choose to do things they cannot do.

If the initial response fails, a dissatisfied employee repeats this adaptive cycle, selecting another (or the same) adaptive response. An adaptive behavior may, however, trigger a "deviation-amplifying" cycle. For example, a disgruntled employee may miss work periodically and face penalties imposed by his or her employer. Enraged, the disciplined employee may perform more extreme adaptive behaviors, invoking even stronger sanctions. This cycle of infraction and sanction continues until it is broken when the employee leaves. Repeated adaptive attempts may fail to restore satisfaction and thus produce job stress—feelings of hopelessness about one's inability to adapt to unsatisfactory conditions. Expanding this adaptation



**Figure 7-7 Model of Employee Adaptation.** (J. Rosse and H. Miller Relationship between absenteeism and other employee behaviors. In P. Goodman, R. Atkin, and Associates (Eds.), *Absenteeism* (p. 208). San Francisco: Jossey-Bass.)

model, Hulin (1991) introduced attempts to increase job outcomes (stealing or moonlighting) and psychological job withdrawal (long coffee breaks or substance abuse) as means to relieve dissatisfaction.

Rossé and Hulin (1985) first investigated this adaptation theory using a longitudinal design. Assessing job affect and adaptive responses, they interviewed new hospital employees on several occasions during their first six months of work and solicited biweekly supervisory reports about withdrawal behaviors. As predicted, job attitudes inversely correlated with withdrawal acts and a complex, self-reported measure of avoidance and retaliation responses. Refuting theoretical expectations, it was found that job affect *increased* self-reported attempts at change. Dissatisfied employees who performed few adaptive behaviors suffered severe symptoms of mental and physical ill health.

### Research Evaluation

These explanatory accounts of varied manifestations of dissatisfaction broaden our thinking about turnover, positing as they do quitting as symptomatic of dissatisfaction that finds expression whenever other routes to restore satisfaction are blocked. While encouraging, empirical support for adaptation and EVLN models still lags. In particular, future researchers must clarify the meaning of these behavioral taxonomies to resolve conflicting conceptualizations of response families. To illustrate, EVLN theorists overlook psychological avoidance, aggression toward employers, and attempts to increase job outcomes; adaptation theorists (Hulin 1991; Rossé and Hulin

1985) omit loyalty as a possible adaptive response. Compounding this confusion, different theoretical schools define similar response clusters differently. For example, EVLN taxonomies classify turnover and absences into different families (exit and neglect, respectively); adaptation taxonomies categorize both acts together under "behavioral job withdrawal." EVLN theorists conceive job transfer as an exit response; adaptation theorists regard this act as an "attempt to change the work role" rather than as a form of behavioral withdrawal. Instead of intuition, stronger theoretical justifications for classifying responses are clearly merited. That is, we will benefit from more explicit criteria that differentiates between behavioral families.

Besides resolving such conceptual ambiguities, we need more development and validation of measures of response families. As a start, future investigations might refine the most popular measure, Farrell's scales (1983). Farrell's measures were derived from a sound theoretical basis and have shown promising construct validity (see also Withey and Cooper 1989). In view of the potential redundancy between passive loyalty and neglect (*ibid.*), we might revise Farrell's operationalization of loyalty to emphasize *proactive* company support. Existing validated measures of organizational citizenship may better approximate this conception of loyalty (Organ 1990). We might also expand Farrell's scales to accommodate other adaptive reactions, such as the aggression and psychological withdrawal conceived of by adaptation theorists (Hulin 1991).

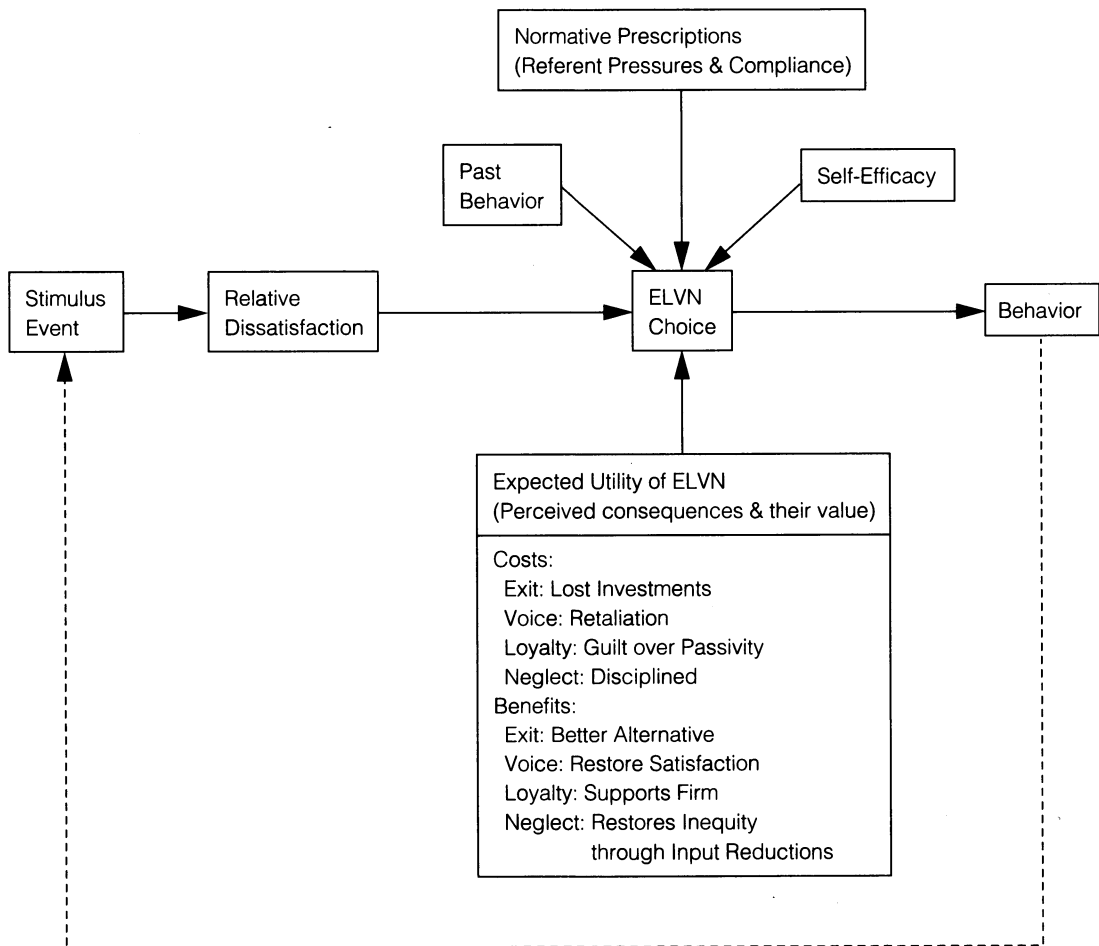
Additional validations of self-reported measures of adaptive responses with external criteria (such as performance ratings, personnel records, and productivity); Withey and Cooper (1989) would dispel criticism that common method bias underpins corroboration of the models (Rusbult et al. 1988). We must establish whether EVLN or adaptation models can actually predict overt behaviors rather than self-reported acts. Only Rossé and Hulin (1985) showed that their adaptation formulation predicts objective records of tardiness, absences, and turnover. Yet objective behavioral assessments are essential: Survey respondents may readily deny neglectful or withdrawal behaviors because of concerns about the way they are presenting themselves or fears of incrimination (Hessing, Elffers, and Weigel 1988). Given the likely falsification of self-reported "misdeeds," EVLN or adaptation models may not be able to forecast overt adaptive responses (Hom, Sutton, and Tehrani 1992).

Longitudinal examinations must also substantiate causal assumptions behind these theories. Unlike existing panel work, future panel research must apply more powerful SEM analyses (see Williams and Podsakoff 1989) and collect response data during more propitious time intervals (Hom and Griffeth 1991). It is quite likely that deficient panel analyses and inopportune measurement intervals may underlie the equivocal support for causal effects provided by EVLN determinants (see Farrell et al. 1990). We recommend longitudinal research on the causal interaction among adaptive responses (Withey and Cooper 1989). EVLN and adaptation models imply that dissatisfied employees substitute alternative behaviors if their initial

response fails to resolve their dissatisfaction (Rossé and Hulin 1985; Withey and Cooper 1989)—an untested implication.

### Maladaptation

Conceptual developments in modern social psychological explanations of relationships between attitude and behavior may enrich theories about how employees cope with maladaptation to work. Most notably, theories of reasoned action deserve special consideration (Ajzen 1991; Bagozzi and Warshaw 1990; Fishbein and Ajzen 1975; Koslowsky, Kluger, and Yinon 1988; Triandis 1979). These models propose that the expected utility of the act (including the perceived benefits and costs of the act *and* a valuation of those consequences), social pressures to enact the behavior (and motivation to



**Figure 7-8 Expanded Theory of EVLN Responses.**

comply with these demands), perceived ability to perform the act (belief in self-efficacy), and previous behavioral occurrences (“habit” [Bagozzi and Warshaw 1990; Triandis 1979] or behavioral investments [Koslowsky, Kluger, and Yinon 1988]) dictate behavioral choice. These models (Ajzen 1991; Sheppard, Hartwick, and Warshaw 1988; Triandis 1979; Zalesny 1985) have successfully predicted diverse human activities including exit—that is, turnover (Hom and Hulin 1981; Prestholdt, Lane, and Mathews 1987)—and loyalty—that is, organizational citizenship (Becker, Randall, and Riegel 1992).

We thus adapt a contemporary theory, illustrated in Figure 7-8, of reasoned action to explain EVLN responses and elaborate on EVLN and adaptation models. (Note that this model begins with EVLN responses as a preliminary, but not exhaustive, behavioral taxonomy.) Although commonly applied to explain specific behaviors, the theory of reasoned action can be generalized to predict general categories of behavior (Ajzen and Fishbein 1980). Indeed, this perspective may explicate EVLN response selections better than current viewpoints do by specifying more proximal and complete behavioral determinants. This theoretical view accounts for Rusbult et al.’s finding (1988) that dissatisfaction promotes destructive responses, the presumption being that the expected utility of those acts underlies the effects. Disgruntled employees take actions of neglect or exit because they perceive that such acts harm their employer *and* that they (the employees) value that damage (the actions have a positive utility). Similarly, the theory of reasoned action can explain why job investments deter acts of exit and neglect (*ibid.*). Supposedly, job incumbents who are heavily invested in the job do not behave destructively because they fear forfeiting their job investments; for them, destructive acts have a negative utility. The expected utility of exit and voice and self-efficacy of voice—constructs from the theory of reasoned action—may account for Rusbult et al.’s finding (1988) that job opportunities reinforce exit and voice. Employees who have alternatives face fewer costs in leaving (for them, there is less threat of unemployment) or of voice (and less fear of dismissal) (Withey and Cooper 1989), while the availability of work elsewhere empowers them (increasing their self-efficacy) to voice complaints.

Moreover, the theory of reasoned action elaborates Withey and Cooper’s constructs. Like Withey and Cooper’s framework, this model specifies perceived action costs but also considers the valuation of those costs, which vary among employees. This formulation may explain Withey and Cooper’s contention that an individual’s expectations that colleagues will not do anything can impel that individual into action. Essentially, inertia among coworkers represents a referent pressure prescribing *neglect* responses. Yet an employee may *not* comply with such implicit social demands because the passivity of coworkers about deteriorating conditions subjects her and others to continued suffering. Assuming personal responsibility, this person thus undertakes voice responses to correct circumstances. The theory of reasoned action regards “efficacy of response for restoring satisfaction” as a primary *voice* consequence. Unlike Withey and Cooper’s view, our conception of expected utility embraces other positive consequences of the voice response

(and their relative desirability) besides “efficacy for restoring satisfaction.” For example, this model conceives sponsors as another beneficial voice outcome: protection from reprisals for voicing complaints. Furthermore, our theory construes interpersonal barriers to voice as merely *one* of many constraints reducing the perceived self-efficacy of voice (i.e., lowering one’s perceived ability to perform the act).

This model further conceptualizes job availability and organizational commitment as distal rather than proximal EVLN antecedents (*ibid.*). Expected utility and normative prescriptions explain why committed employees respond constructively to dissatisfaction. They choose voice or loyalty because they believe that such actions benefit their company. They value that outcome and more readily comply with managerial expectations for constructive acts. The expected utility of destructive acts underlies the reason that ample work opportunities promote destructiveness: The availability of other jobs reduces the costliness of exit and neglect, making those responses more probable.

Our formulation considers previous behavioral occurrences as a EVLN determinant (Fredricks and Dossett 1983; Koslowsky, Kluger, and Yinon 1988; Triandis 1979). Employees may perform some EVLN responses habitually, without conscious deliberation about behavioral contingencies or social expectations. Instead of rational decision making, individuals, being script driven may automatically select behaviors that match previous successful responses (Lee and Mitchell 1994). In line with this conjecture, Withey and Cooper (1989) reported high temporal stability for EVLN acts; a response made previously is likely to be repeated. Following Bagozzi and Warshaw’s reasoning (1990), we also contend that previous EVLN responses boost future EVLN responses whenever intentions are unclear, behavioral expected utility and social norms are changing, or expected utility incompletely reflects self-generated inferences from past responses.

Our extension of the theory of reasoned action resembles adaptation models (Hulin 1991; Rossé and Hulin 1985; Rossé and Miller 1984). Thus, normative prescriptions represent role models and social norms in adaptation models and past behavior corresponds to reinforcement history. The self-efficacy construct parallels opportunity constraints in adaptation models. Adaptation theorists also acknowledge the notion of behavioral expected utility as a major antecedent of response choice (Hulin 1991; Rossé and Miller 1984).

Though similar, the theory of reasoned action provides more precise conceptual and operational definitions for theoretical variables than do existing adaptation models. For example, this model specifies perceived behavioral prescriptions of individual referents; adaptation theories do not describe how to operationalize social norms and role models, corresponding social determinants (Rossé and Miller 1984). Over the years, empirical tests of the theory of reasoned action have also developed and refined measurement operations for components of the model (Ajzen and Fishbein 1980). Given its conceptual clarity and its refined measurement operations, this

model is potentially more testable. Admittedly, operationalizing the theory of reasoned action for general classes of behavior is more cumbersome than testing its predictions of specific behavior (*ibid.*). For example, an ideal but impractical assessment of response utility would operationalize the utilities of all behaviors in a response family rather than a generic (potentially vague) utility for the whole family. Ajzen and Fishbein (1975) suggest procedures for inductively identifying salient behavioral consequences and referent others.

Although promising, the theory of reasoned action doubtlessly overemphasizes rational decision making (Lee and Mitchell 1994). Dissatisfied employees may not always choose adaptive behaviors after careful, mental deliberation about their costs and benefits. In contrast with this economic view of decision making, Lee and Mitchell (*ibid.*) described the less rational and more automatic processes by which employees decide how to behave. Drawing from image theory, they argued that people often choose behaviors after evaluating the compatibility of such action with personal values and goals ("images"). Such assessments of compatibility occur quickly and involve simply determining violations of fit (with the images) by behavioral options. Lee and Mitchell further reasoned that nonanalytical judgments are more routine than are elaborate, conscious calculations of behavioral outcomes and prescriptions and may typify certain individuals. Several behavioral options that survive the screening for image fit may, however, later be subject to a more rational cost-benefit analysis before a behavioral choice is made. The introduction of alternative decision-making strategies portrayed by image theory would further extend our preliminary theoretical framework for EVLN choice.



# METHODOLOGICAL PROBLEMS IN TURNOVER RESEARCH

In this chapter, we review the limitations of prevailing research methodologies for studying turnover. Specifically, we describe deficiencies in current procedures for validating measures of causes of turnover, validating theories of structural relations among antecedents of turnover, and verifying causal priorities and causal lag times among determinants of turnover. Later, we suggest alternative methods to offset these shortcomings that might provide greater insight into the phenomenon called turnover.

## MEASUREMENT PROBLEMS

Although new explanatory constructs are proliferating, research into turnover have universally neglected to evaluate whether measures truly represent those turnover antecedents. With rare exceptions (for job satisfaction [Kinicki, Carson, and Schriesheim 1990] and organizational commitment [Mowday, Porter, and Steers 1982]), operationalizations of most determinants of turnover have largely escaped construct validation. Researchers often used ad hoc scales with unknown validity or indirectly represented constructs with standard scales (Griffeth and Hom 1988a). Such arbitrary measurements doubtlessly reflected the omission of measurement operations or vague conceptual definitions in the theories (Bagozzi and Phillips 1982). Questionable assessment procedures may underlie the mounting evidence disputing the substantive validity (Schwab 1980) of many models of turnover (Griffeth and Hom 1990; Hom, Griffeth, and Sellaro 1984; Lee 1988; Lee and Mowday 1987; Price and Mueller 1981, 1986). In the following section, we review existing approaches for construct validation and their weaknesses.

### Scale Unidimensionality

All too often turnover researchers simply assume, rather than test, that a scale's items are unidimensional (Marsh and Hocevar 1988). That a scale's items measure the same construct is the "most critical and basic assumption of measurement theory" (Hattie 1985, p. 49). Indeed, unidimensionality of scale is a prerequisite for construct validity (Gerbing and Anderson 1988). Items on a scale must estimate the same concept before its conceptual meaning can be ascertained (Hattie 1985).

Exploratory factor analysis (EFA) and estimates of reliability have primarily evaluated the unidimensionality of the scale. To illustrate, Price and Mueller (1981, 1986) used EFA to show that a set of items purportedly mea-

asuring the same thing loaded on a common dimension. After deleting poor loading items, they estimated internal consistency reliabilities for the remaining items. Though commonplace, these approaches test scale unidimensionality poorly for they neglect the “external consistency” criterion (Gerbing and Anderson 1988). This criterion requires that measures of the same construct have parallel patterns of correlations with measures of *other* constructs. That is, indicants of other factors help determine the unidimensionality of items defining a given scale.

Thus, EFA and reliability estimates omit tests of external consistency because they overlook relations between a given item set and other item sets. Even when used to analyze multi-item sets, EFA still violates the notion of unidimensionality by estimating items’ loadings on multiple dimensions, not one dimension. Furthermore, reliability estimates *assume*, but do not assess, unidimensionality.

Beyond those limitations, EFA typically unearths fewer factors than exist in data (Hunter and Gerbing 1982). Underfactoring poses a serious problem for models of the turnover process that specify closely coupled, correlated causes (Mobley 1977). As a result, EFA would collapse highly correlated but distinctive causes into one factor. Further, EFA offers no “residual” factor for bad items (Hunter and Gerbing 1982). Because every item must sizably load on some factor, EFA assigns bad items to some factors. In short, EFA inadequately validates scales, although it aids in the construction of scales (Gerbing and Anderson 1988).

### **Convergent and Discriminant Validity**

Moreover, scholars of turnover have neglected to verify the convergent and discriminant validity of measures of turnover causes. Here again, this oversight frustrates the confirmation of a theory. For example, examinations of the same model may produce conflicting interrelationships between constructs because they operationalize model concepts differently (see Dalessio, Silverman, and Schuck 1986; Griffeth and Hom 1988a; Steel and Griffeth 1989). That is, alternative translations of the same constructs may lack convergent validity and reflect different concepts. Likewise, measures lacking discriminant validity may undermine support for the theory. Essentially, indices of purportedly dissimilar constructs may actually reflect the same construct and display similar patterns of correlations with other variables, refuting theoretical expectations of different relationships for those indices (see Baysinger and Mobley 1983).

Besides oversight, the few available tests of convergent and discriminant validity have been inadequate. To illustrate, some researchers interpreted high correlations among similar indicators as showing convergent validity (Hom, Griffeth, and Sellaro 1984), while taking modest correlations among dissimilar indicators as signs of discriminant validity (Price and Mueller 1981, 1986). Such informal inspections are not only imprecise but also misleading. According to Campbell and Fiske (1959), the proper diagnosis of discrimi-

nant validity requires the comparison of heterotrait correlations with convergent validities. This comparison may find that *modest* heterotrait correlations exceed convergent validities, implying that there is no discriminant validity. (Bollen and Lennox [1991] showed that even this test can mislead because correlations between indicants of different factors may surpass correlations between indicants of the same factor when the factors correlate highly and factor loadings are uneven.) Such informal tests overlook shared method bias (Williams, Cote, and Buckley 1989). Common or correlated assessment methods inflate correlations among common-construct indicants, overstating convergent validity. Conversely, method bias understates discriminant validity by inflating heterotrait correlations.

### **Construct Differentiation and Dimensionality**

In the wake of the growing complexity and scope of theories of turnover, construct validation is increasingly necessary in order to substantiate independent concepts (see Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1981, 1986; Steers and Mowday 1981). Theorists on turnover often introduced explanatory constructs without justifying their independent existence (Schwab 1980). Multiplying constructs invite confusion rather than understanding if the new constructs overlap or duplicate (using different construct names) existing ones (Hom, Kinicki, and Domm 1989). Indeed, fundamental model support requires the empirical differentiation of a model's theoretical terms (Bacharach 1989; Bagozzi and Phillips 1982). Demonstrations that model variables are redundant can promote theoretical parsimony and counterbalance modern trends for ever-expansive conceptualizations (Hom and Griffeth 1991).

Apart from concept differentiation, examinations of theory have overlooked the development of higher-order integrative concepts (*ibid.*; James and James 1989). The formulation and validation of general concepts that summarize lower-order (even distinctive) concepts would advance parsimonious thinking on turnover (Stein, Newcomb, and Bentler 1988; James and James 1989). Such higher-order concepts may more readily than lower-order concepts disclose substantive validity (Friedman and Harvey 1986; Hunter and Gerbing 1982). Compared with construct variance, scale-specific variance often dominates measures of lower-order concepts, obscuring linkages between constructs (Rossé and Hulin 1985).

Similarly, substantiation for complex, abstract constructs in many formulations of turnover is amiss (Hom, Kinicki, and Domm 1989). Although they serve as valuable organizing frameworks (Osigweh 1989), some molar concepts resemble collections of diverse concepts rather than being unitary concepts (Brooke 1986) or unifying concepts underlying distinctive, related subdimensions (James and James 1989). Echoing Goodman, Ravlin, and Schminke (1987), many models of turnover that identify general classes of causes are "heuristic". For example, prevailing conceptualization of perceptions of the labor market are oversimplified and overly abstract (Steel and

Griffeth 1989). Impressions held by employees comprise varied beliefs, such as the crystallization of alternatives, information about the availability of jobs, and ease of movement, components that may be sufficiently distinctive to warrant being treated as separate constructs (Hom, Kinicki, and Domm 1989; Morrow 1983).

Besides obscuring meaning, broad categories consisting of heterogeneous components may confound estimates of substantive validity because they have different nomological networks (Hunter, Gerbing, and Boster 1982). Indeed, Marsh, Barnes, and Hocevar (1985) contend that construct validation of a concept's dimensionality must precede valid research on its linkages with other constructs. Construct validation is urgently needed to address the question of whether concepts of turnover causes are differentiable or redundant and ascertain their level of abstraction—whether they are general concepts or distinctive subcomponents. Such refinement of concepts is a precondition for correctly embedding them within a nomological network (Schwab 1980).

### **Measurement Bias**

With rare exceptions (Graen and Ginsburgh 1977; Laker 1974), turnover researchers routinely employ one method—namely, survey methodology—to operationalize causal constructs. This dependency on a single-method threatens construct and substantive validity. Shared biases in assessments undermine the determinations of convergent and discriminant validity. In the same manner, common bias in method distorts substantive validity by inflating the estimated structural relations among constructs (Bagozzi, Yi, and Phillips 1991). Some researchers cope with this error by including several scale formats in a survey instrument. Even so, reactivity and response biases still pervade these formats (Webb, Campbell, Schwartz, Sechrest, and Grove 1981).

Furthermore, survey (or other verbal self-report) methodology may produce self-generated validity (Feldman and Lynch 1988). Merely interrogating respondents about workplace attitudes, beliefs, or intentions may create cognitions. These artificially induced cognitions may in turn imply answers to later questions about the job. In this way, self-report procedures create relations that might not otherwise exist in the absence of obtrusive measurement. Even if such cognitions already reside in memory, questions early in the survey may boost their accessibility and overstate their effects on answers to later questions (Srull and Wyer 1979). In short, survey assessments may spuriously produce or inflate relations among the antecedents of turnover, overestimating the validity of models of turnover.

## **CONFIRMATORY FACTOR ANALYSIS**

In this section, we describe more rigorous construct validation procedures. We recommend a special application of structural equation modeling

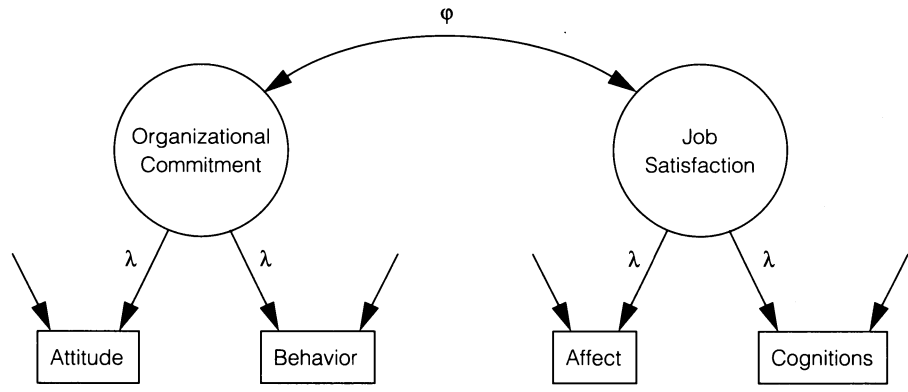
(SEM)—known as confirmatory factor analysis (CFA) (Long 1983)—that offers particular advantages for construct validation. In testing a hypothesized factor structure, CFA better substantiates scale unidimensionality and convergent and discriminant validity (Anderson and Gerbing 1988). CFA can assess concept redundancy and validate higher-order constructs (Stein, Newcomb, and Bentler 1988). With multiple operational procedures, CFA can also assess the extent to which bias in the method affects the indicators and can control the effects of bias on estimates of causal interrelations in turnover models (Glick, Jenkins, and Gupta 1986; Schmitt and Stults 1986).

### A Priori Measurement Model

Unlike EFA, CFA requires a theoretically prescribed factor structure—that is, an explicit measurement model. For this method, CFA users must specify in advance the number of factors, whether or not the factors are correlated, and pattern of indicator loadings on factors. For an *a priori* measurement model, CFA users must designate which parameters are fixed (set, for example, at zero) and which are freed for estimation. Generally speaking, free parameters are factor loadings—estimating how well indicators measure certain factors—and factor correlations. Fixed parameters include factor loadings that are set to 0 for indicators that supposedly do *not* reflect certain factors and 1.0 factor loadings for reference indicators, whose factor loadings are fixed to 1.0 to set a scale for each factor (Hayduk 1987). CFA then estimates the free parameters and the fit of this measurement model to the data.

In Figure 8-1, we depict a hypothetical measurement model for two antecedents of turnover: organizational commitment and job satisfaction. Suppose two indicators assess each construct. For example, attitudinal and behavioral indices might assess commitment (see O'Reilly and Chatman 1986); affective and cognitive indices measure satisfaction (Fishbein and Ajzen 1975). In Figure 8-1, factors are depicted by circles and indicators by boxes. Curved arrows indicate correlations between factors, and straight arrows represent the factors' effects on indicators (factor loadings). Short, unlabeled arrows without source variables signify the indicators' measurement-specific factors *and* random measurement errors.

This measurement model posits that attitudinal and behavioral indicators load ( $\lambda$ ) only on the commitment construct, whereas affective and cognitive indicators measure the satisfaction construct. In contrast to EFA, this model proposes that commitment indicators have zero loadings on satisfaction and that satisfaction indicators have zero loadings on commitment. (The absence of arrows linking indicators to factors represents zero factor loadings.) Depending on one's theory about oblique or orthogonal factors, this model submits either correlated or uncorrelated factors ( $\phi$ ). Using one of several procedures for estimation (e.g. maximum likelihood), CFA then estimates theorized factor loadings, factor intercorrelations, and measurement error variances. Given the restricted parameters, CFA estimates the free



**Figure 8-1 An a priori Measurement Model for CFA Evaluation**

(and constrained) parameters so that they maximally reproduce observed covariances among indicators (Anderson and Gerbing 1988).

Three kinds of indices assess model fit: omnibus fit indices, individual parameter estimates, and nested model comparisons.

**Omnibus Fit Indices** The most popular overall fit index is a chi-square test, which statistically compares the covariance matrix implied by the measurement model with the observed covariance matrix. (Although SEM procedures assume input covariances, SEM users routinely analyze correlations, which can distort SEM results [Cudeck 1989].) A nonsignificant chi-square indicates that the measurement model accurately reproduces covariances, whereas a significant chi-square signals significant departures between covariances implied by the model and those observed. Unfortunately, large samples and/or departures from normality may inflate the chi-square, rejecting an otherwise acceptable model (Joreskog and Sorbom 1989). Indeed, because models only approximate reality, all models are a priori false and, with sufficiently large samples, will be rejected (Marsh 1989).

Because of the chi-square's limitations, alternative fit indices have emerged. In particular, many CFA users have interpreted the normed fit index (NFI [Bentler and Bonett 1980]). We compute the NFI by subtracting the model's chi-square from the chi-square of a null model—that posits mutually uncorrelated variables and no factors—and then dividing by the null model's chi-square. The NFI compares the measurement model to a null model, which provides the worst fit with the data and yields the largest chi-square (James, Mulaik, and Brett 1982). The NFI thus compares the lack of fit (that is, the chi-square) of the measurement model with that of the worst-fitting null model. The NFI approaches unity when a plausible measurement model greatly reduces the lack of fit relative to the maximal lack of fit possible—that of the null model. NFIs exceeding .90 signal a good fit (Bentler and Bonett 1980).

Nonetheless, small sample sizes depress the mean of the sampling distribution of the NFI (and other normed indices that are bound between 0

and 1), although sample size does not enter into its calculation (Bollen 1989, 1990b). By comparison, sample size influences the calculated values of nonnormed fit indices—which may exceed 1—but barely affects their sampling-distribution means (Bollen 1990b). Because their weaknesses are different, Bollen prescribed both normed and nonnormed indices to compensate for their different sample-size biases. For example, Mathieu (1991) and Hom, Caranikis-Walker, Prussia, and Griffeth (1992) interpreted the NFI (a normed index) along with a nonnormed “incremental fit index” (IFI [Bollen 1989]). The IFI is a variant of the NFI but its denominator subtracts the measurement model’s degrees of freedom from the chi-square of the null model. This index offsets the NFI’s small-sample bias to approximate better the asymptotic NFI value (Marsh, Balla, and McDonald 1988; Mulaik, James, Van Alstine, Bennett, Lind, and Stillwell 1989).

Bentler (1990) introduced the comparative fit index (CFI), which estimates a population parameter unlike other descriptive statistics of fit. His simulation study found that the CFI more accurately estimates true model fit than do other indices of fit, especially in small samples. Indeed, the CFI shows less sampling variability than do the NFI or IFI. Unlike the IFI, the CFI also never exceeds 1 and avoids the NFI’s small-sample underestimation of model fit. Despite varying formulas, these three indices of fit are nevertheless asymptotically equivalent (*ibid.*).

***Parameter Estimates*** Individual estimates of model parameters complement overall indices of fit (James, Mulaik, and Brett 1982), which only test the validity of fixed parameters, such as factor loadings that are set to zero. Significant (sizable) factor loadings support the factor model and convergent validity, affirming that the indicators mirror the underlying constructs (Anderson and Gerbing 1988; Bollen 1989). Bagozzi and Yi (1990) further recommended an examination of the possibility that parameter estimates might be illogical or fall outside conventional acceptability. Such “improper” estimates (such as standardized factor loadings > 1.0) may emanate from misspecified models. Inspections of estimated factor correlations may further test the measurement model. Low correlations indicate discriminable factors; excessively high correlations suggest redundant factors. To test discriminant validity precisely, CFA users can compute a confidence interval around the correlation between two factors; the inclusion of unity denotes equivalent factors (*ibid.*).

***Nested Model Comparisons*** Nested model comparisons can evaluate a measurement model, verifying the necessity of a parameter set. For this test, we specify one or more restricted versions of the basic measurement model by fixing (or constraining) some parameters to certain values, such as zero. These restricted versions are termed “nested” models because they are derived from the original model. Then we statistically compare each nested model with the original model by subtracting their chi-squares, the difference also being a chi-square (James, Mulaik, and Brett 1982). The difference

between the degrees of freedom in the models is the degree of freedom for this “difference chi-square.” A significant difference chi-square rejects the more restrictive model and its extra parameter restrictions, a finding that validates the parameters fixed in the nested model but freed in the original model. A nonsignificant chi-square upholds (or fails to reject) the restrictive model, which is favored over the original model due to parsimony. In this event, parameters fixed in the nested model but freed in the original model are superfluous. Moreover, NFI or CFI difference between models indicates practical differences in fit (Glick, Jenkins, and Gupta 1986; Hom and Griffith 1991; Widaman 1985) and may resist sample-size bias more than the difference chi-square would (Marsh 1989).

**Estimation procedures** Most CFA users assess a measurement model with maximum likelihood estimation. Given parameter restrictions, this procedure seeks maximum likelihood estimates of free parameters that minimize discrepancies between observed and model-implied covariances (Hayduk 1987). Yet this method assumes a multivariate normal distribution of observed variables. Maximum likelihood parameters are robust against departures from multinormality (Anderson and Gerbing 1988; Huba and Harlow 1987). Non-normal data do, however, bias—albeit a conservative bias—parameter standard errors and overall chi-square test.

New estimation procedures have emerged, relaxing the multinormality assumption. One promising alternative is elliptical estimation, which requires zero skewness but not normal-variable kurtosis (Bentler 1985; Bollen 1989). Variables can have platykurtic or leptokurtic distributions, although their kurtosis must be equal. The least restrictive procedure is the distribution-free method, which is asymptotically insensitive to variable distribution. In other words, variables can have any distributional form. All the same, these new methods demand much larger sample sizes than does maximum likelihood estimation, limiting their use (Anderson and Gerbing 1988; Bollen 1989).

### Convergent and Discriminant Validity

As stated above, CFA assessment of an *a priori* measurement model can test convergent and discriminant validity (Anderson and Gerbing 1988). Significant factor loadings reveal convergent validity for indicators. Confidence intervals around factor correlations excluding 1.0 suggest discriminant validity. Beyond this, nested model comparisons can augment evidence for discriminant validity (*ibid.*). To illustrate this approach with our running example, we would specify perfect correlation between the two factors in Figure 8-1 ( $\phi = 1.0$ ) to generate a nested (one-factor) measurement model. Then, we compute differences in fit statistics between the original two-factor and one-factor models. Meaningful differences between models in fit reject the constraint of perfect factor correlation and disclose discriminably different factors, whereas minimal model differences support this parameter restriction and oppose discriminant validity. To test models with



three or more factors, Anderson and Gerbing (*ibid.*) recommended testing the discriminant validity between each pair of factors rather than simultaneously testing all the factors.

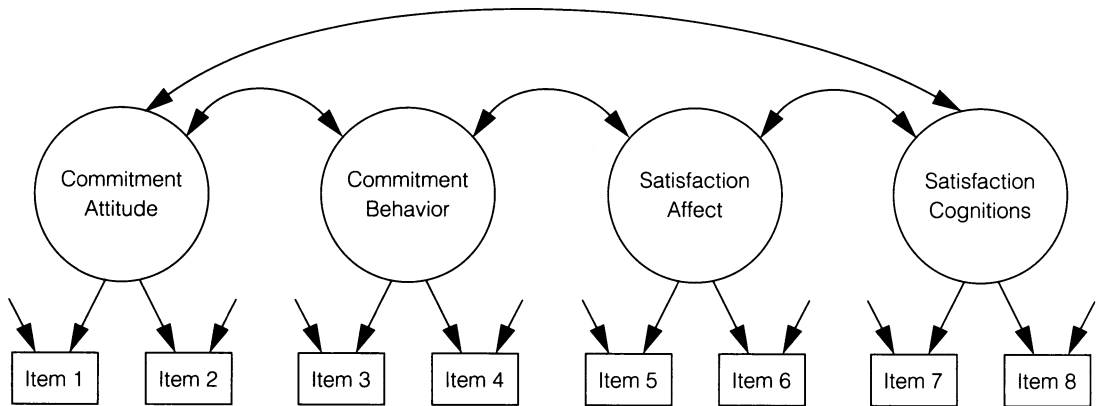
### Concept Differentiation and Redundancy

Nested model comparisons can similarly verify theoretical independence or redundancy among model concepts. For example, Hom and Griffeth (1991) used CFA to test the conceptual distinctions between thoughts of quitting, search decisions, and intentions to quit. They compared nested models, which equated pairs of withdrawal cognitions, with a baseline model positing all three cognitions. Equating these concepts did not materially degrade fit relative to this baseline model. That is, nested model comparisons countered these popular theoretical distinctions (Mobley 1977; Mobley, Griffeth, Hand, and Meglino 1979), prescribing a global withdrawal cognition instead. CFA tests of concept differentiation thus advance theoretical parsimony by identifying redundant concepts. That said, CFA comparisons of alternative measurement models may advance our thinking about turnover just as competitive theory testing does (Hom and Griffeth 1991; Hom and Hulin 1981).

### Scale Unidimensionality

CFA tests scale unidimensionality more rigorously than does EFA or reliability estimation (Gerbing and Anderson 1988). CFA explicitly determines whether all scale items represent the same factor, whereas EFA estimates item loadings on all factors. To illustrate, suppose our measurement model of the item structure specifies that each scale comprises two items, as depicted in Figure 8-2. For CFA this model further theorizes that the items reflect only their factor (scale) and have zero loadings on other “irrelevant” scales. CFA would thus test those prespecified factor loadings. Significant (strong) factor loadings would support item assessment of factors; good indices of fit would uphold the validity of *a priori* null factor loadings—that items do not reflect extraneous factors. More than this, CFA of multifactor models can verify the external consistency standard for scale unidimensionality. According to Gerbing and Anderson (1988), overall statistics of fit indicate whether items from the same scale have a parallel pattern of correlations with items from other scales.

**Noninterval scales** It is quite likely that the dichotomous, or categorical, nature of most item measures violates the statistical assumptions of CFA. Prevailing SEM estimation procedures assume interval-level scales, but most scales for psychological measurement lack this property of measurement (Ghiselli, Campbell, and Zedeck 1980). Fortunately, Muthen’s LISCOMP (1987) and Joreskog and Sorbom’s LISREL 7 (1989) can handle categorical data or mixtures of categorical and continuous variables. The procedure pre-



**Figure 8-2 Measurement Model of Scale Items**

sumes that normally distributed latent variables underlie observed categorical variables and analyzes polychoric correlations (between categorical variables) and polyserial correlations (relating categorical and continuous variables) (Bollen 1989; Schoenberg 1989). This categorical procedure requires larger samples than does maximum likelihood (Joreskog and Sorbom 1989).

Bollen (1989) summarized the simulation research on the effects of treating ordinal indicators as though they were continuous variables. First, excessive kurtosis or skewness of indicators adversely affects the chi-square and  $z$  tests of the statistical significance of maximum likelihood estimators. Second, kurtosis and skewness of ordinal variables rather than the number of their categories most bias the chi-square test. Third, fewer numbers of categories of ordinal indicators attenuate standardized coefficient estimates. All told, item indicators having few categories and/or exhibiting severe skewness and kurtosis may most bias CFA tests of scale unidimensionality.

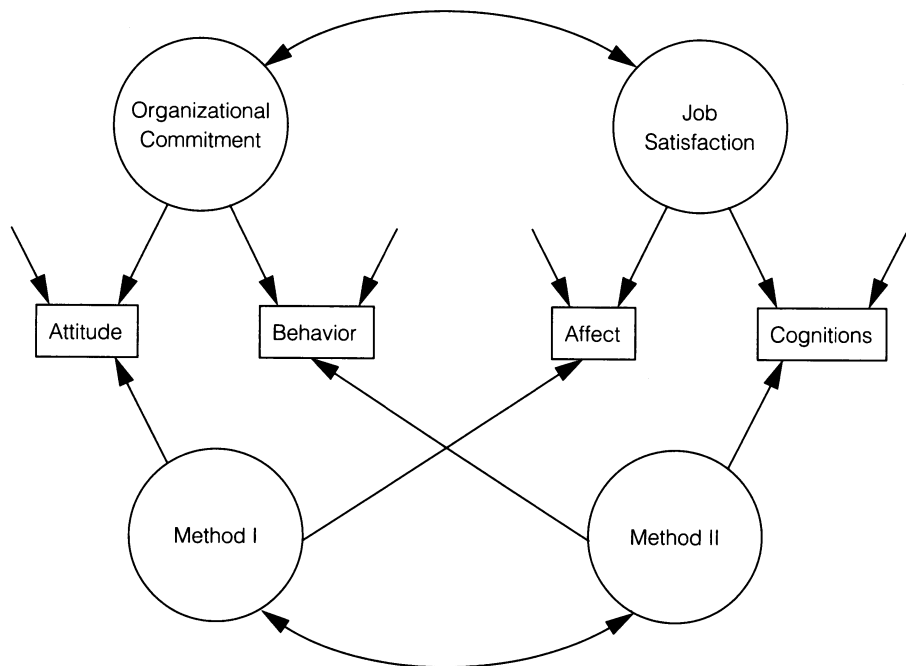
### Multitrait-Multimethod Analysis

As stated earlier, common or correlated assessment methods overestimate convergent validity but underestimate discriminant validity (Kenny and Kashy 1992). Different operationalizations of each construct that do not share the same methodological weakness can offset method bias. Given dissimilar measurements of multiple constructs, we can derive a multitrait-multimethod (MTMM) matrix comprising correlations among different assessment methods. This matrix reveals the extent of convergent validity—different measures of the same construct converge—and discriminant validity—different measures of dissimilar constructs diverge. Over the years, many procedures have evolved to analyze MTMM correlations (Kinicki, Bannister, Hom, and DeNisi 1985; Schmitt and Stults 1986).

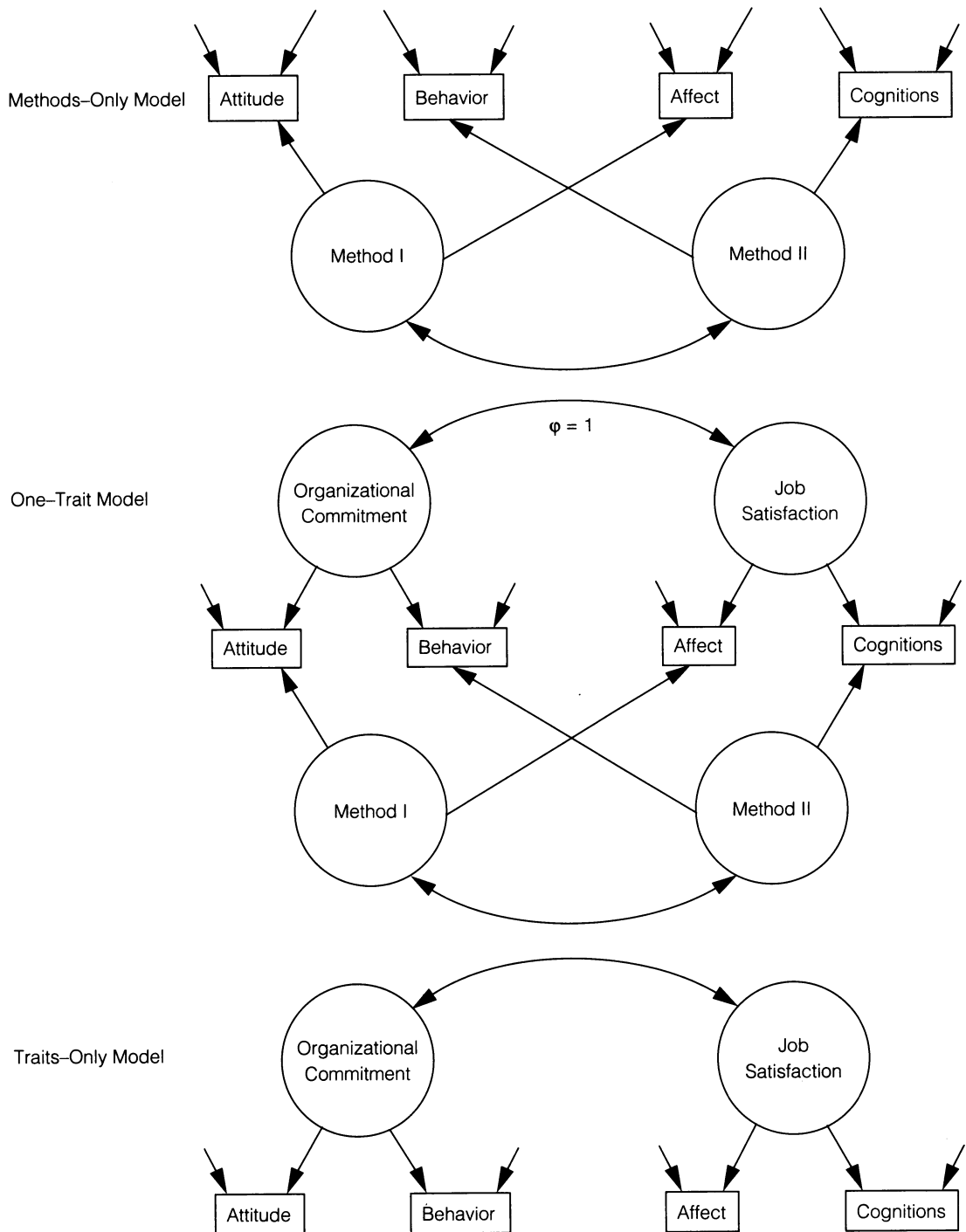
Presently, CFA has become the method of choice for analyzing MTMM data (Bagozzi, Yi and Phillips 1991; Kenny and Kashy 1992; Schmitt and

Stults 1986). Apart from assessing convergent and discriminant validity, CFA can evaluate the effects of bias in method and control method effects on estimates of validity. For MTMM analysis, we specify a measurement model, shown in Figure 8-3, positing latent factors for different assessment procedures and traits (e.g. commitment and satisfaction) (known as the complete model [Kenny and Kashy 1992] or Model 3C [Widaman 1985]). Each indicator loads on a particular trait factor *and* a method factor. Although allowing method factors to correlate, this model mandates zero correlations between trait and method factors to avoid identification problems (Kenny and Kashy 1992; Widaman 1985). CFA evaluation of this model then estimates convergent and discriminant validity and method bias. Specifically, factor loadings measure the extent to which indicators reflect the trait (validity) and method (systematic error) factors. Here again, significant (large) trait loadings indicate convergent validity; low trait correlations (that differ significantly from 1.0) signal discriminant validity (Bagozzi, Yi and Phillips 1991). A measure's loading on a method factor reveals its susceptibility to method bias (Bagozzi and Yi 1990).

Given a plausible MTMM model, we can compare nested models to test convergent and discriminant validity further. Following Widaman (1985), we assess convergent validity by comparing Model 3C (the complete model) against a nested model positing method and no trait factors. (This Methods-Only Model is shown in Figure 8-4.) Dissimilar fit between this model and



**Figure 8-3 Measurement Model with Trait and Method Factors**



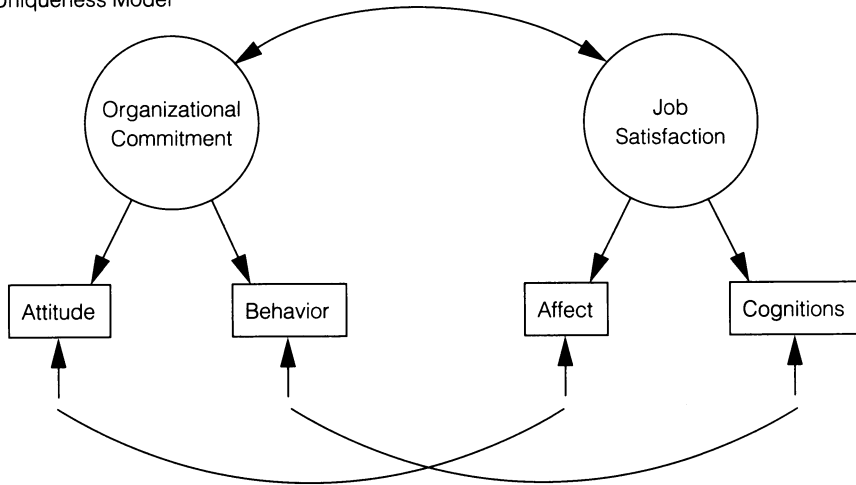
**Figure 8-4** Nested Models for Testing Convergent and Discriminant Validity

Model 3C indicates that trait factors (i.e., job attitudes) are essential for model fit; no difference in fit suggests that they are dispensable (Bagozzi, Yi and Phillips 1991). Testing discriminant validity, we next compare Model 3C against a model specifying perfectly correlated traits (the One-Trait Model, see Figure 8-4). Different model fits indicate discriminably different traits, whereas similar fits suggest redundant traits (Bagozzi and Yi 1990). Last, we compare Model 3C against a model (the Traits-Only model; see Figure 8-4) postulating no method factors. A poorly fitting Traits-Only Model reveals significant method covariance among measures, whereas no fit decrement discloses little method bias (ibid.).

**Other MTMM Models** Despite its advantages, the complete trait-method model often yields improper solutions (negative variances or correlations exceeding 1.0) or fails to converge (Kenny and Kashy 1992). To overcome these limitations, CFA researchers advanced various MTMM models. Kenny and Kashy (ibid.) compared various MTMM models and concluded that Marsh's (1989) "correlated uniqueness" model best surmounts problems of estimation. This model, shown in Figure 8-5, proposes estimating only trait factors and no method factors. To represent systematic error, this model correlates the disturbance (or unique factor) of each measure with disturbances of other measures using the same method. Covariation between unique factors thus assesses method effects, sizable covariances signifying large method bias. In the illustration, correlated disturbances are depicted as curved lines between sourceless arrows. Reanalyzing MTMM data, Kenney and Kashy showed that this model yielded fewer estimation difficulties and more reasonable parameter estimates than did the standard Model 3C.

Moreover, Model 3C confounds random measurement error with unique true-score variance specific to a measure, such as item wording (Bagozzi, Yi and Phillips 1991). Reviewing alternative corrections for this weakness, Bagozzi and fellow researchers (ibid.) concluded that Kumar and Dillon's (1990) First-Order, Multiple-Informant, Multiple-Item (FOMIMI) Model best disentangles random error from unique test variance. Like Model 3C, the FOMIMI Model specifies trait and method factors and posits further measure-specific factors to isolate specific test variance from random measurement error. As illustrated in Figure 8-5, this model posits that each measure consists of trait, method, test-specific, and random-error components (the last are not shown). Specific factors are not related by curved arrows because theoretically, the factors are orthogonal to one another and to trait and method factors. This illustration specifies that two distinct methods, survey and interview, assess organizational commitment, focusing on different expressions (attitude, behavior, or intention) of commitment. For example, an interviewer might ask employees how they feel about the firm (affect), how often they perform tasks that go beyond their job descriptions (behavior), and whether they intend to remain employed there (intention). Common survey and interview questions about company attitudes may reflect the same measure-specific factor (Specific Factor 1). Yet the

Correlated Uniqueness Model



First-Order, Multiple-Informant, Multiple-Item Model

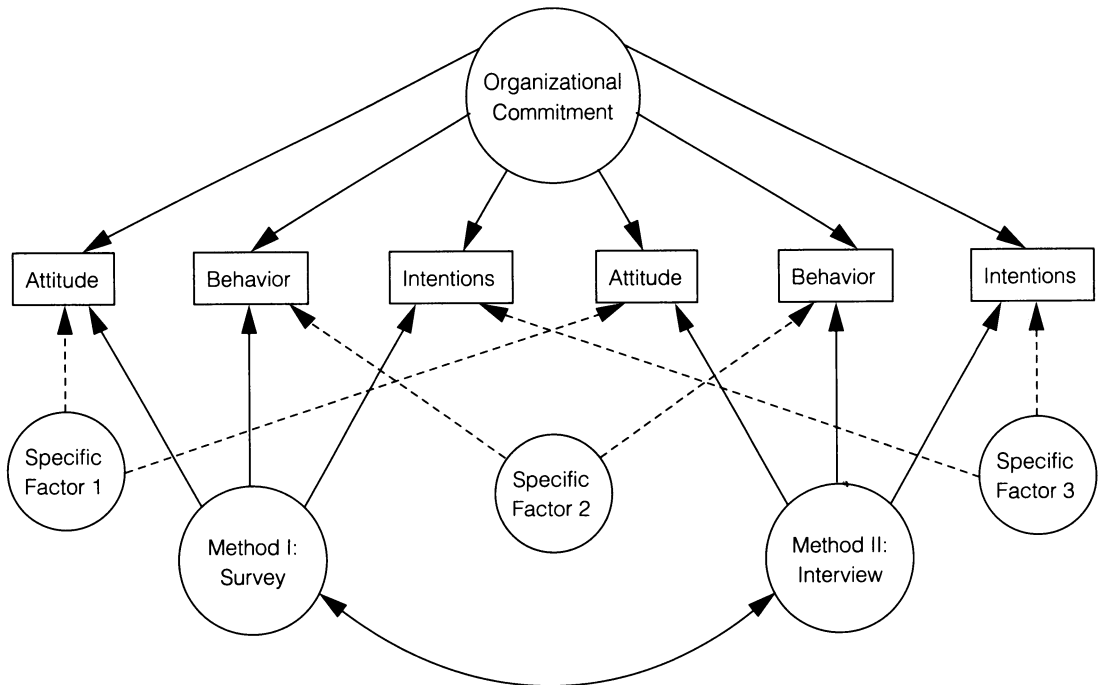


Figure 8-5 Alternative Multitrait-Multimethod Models

FOMIMI model demands three times as many measures as Model 3C does, requiring at least three items for each combination of trait and method to achieve identification.

Model 3C presumes that variation in measures is a linear combination of traits, methods, and error (Bagozzi and Yi 1990). In some circumstances, method factors may *multiplicatively* interact with trait factors. For example, high relationships between traits may boost method effects. Presuming only additive effects for traits and methods, the traditional MTMM model may yield poor fit and biased estimates if methods do interact with traits. To permit interactions between trait and method, Bagozzi and Yi (*ibid.*; Bagozzi, Yi and Phillips 1991) proposed the Direct Product Model. Bagozzi and Yi (1990, 1991) describe how to analyze this model. Analyzing many MTMM matrices, they showed that the Direct Product Model fit data better than Model 3C does when nonadditive effects are present. They recommended first determining whether method effects are additive or multiplicative before assessing construct validity.

### Higher-Order CFA

Earlier we argued that the development of general concepts to subsume lower-order concepts may advance theory parsimony and more readily reveal substantive validity (Hunter and Gerbing 1982; James and James 1989). Higher-order CFA can establish their viability. For example, a global attitude that may account for job satisfaction and commitment (see Steers and Mowday 1981) is shown in Figure 8-6. This Second-Order Model proposes that a general factor “causes” lower-order factors (i.e., commitment and satisfaction), which in turn affect indicators. (This model is formally a structural model, which is more fully described below.) Depicted as dependent variables, lower-order factors also have disturbance terms (shown as sourceless arrows) that embody causal influences other than the general attitude. (For identification, a factor loading for each lower-order concept and the higher-order factor variance must be fixed at 1.0 [Bollen, 1989].)

Higher-order CFA would estimate the general factor’s causal effects, indicator loadings, and overall model fit. Besides, we can contrast this model to a nested model, also shown in Figure 8-6, positing only correlated first-order factors (First-Order Model) (James and James 1989). Thus, the more parsimonious Second-Order Model becomes plausible if it closely matches the fit of the First-Order Model (Marsh and Hocevar 1985). In this event, lower-order factors are hierarchically arranged and reflect different facets of a higher-order factor. If the higher-order factor in the (well-fitting) Second-Order Model also sizably impacts the lower-order factors, a simpler unidimensional representation becomes plausible, wherein a general factor so dominates first-order factors as to erase their distinctiveness. This form of the Second-Order Model thus implies that the first-order factors are equivalent and equally reflect the general construct.

**Concept Dimensionality** Conversely, higher-order CFA may validate existing abstract concepts of turnover causes, testing various measurement structures of concept dimensionality. Marsh and Hocevar (ibid.) identified three leading structures for comparison: unidimensional structure, multidimensional conception with hierarchically arranged, distinctive components, and multidimensional structure with independent subdimensions. To illustrate this application, a Second-Order model depicting Mobley's (1977) global conception of withdrawal expected utility, underlying expected utilities of quitting and job-seeking, is shown in Figure 8-7. Testing his notion, Hom, Kinicki, and Domm (1989) surveyed employees to measure their attitude toward those acts of withdrawal and the perceived consequences of the acts (see Ajzen and Fishbein 1980). Using CFA, they then compared Mobley's implicit Second-Order Model with a less restricted measurement model having two first-order (correlated) expected-utility factors. The Second-Order Model fit data worse than did the First-Order Model, thereby rejecting Mobley's abstract conception. These findings suggested that this global construct might be decomposed into two separate (albeit correlated) lower-order concepts (Hunter, Gerbing, and Boster 1982).

## CAUSAL ANALYSIS

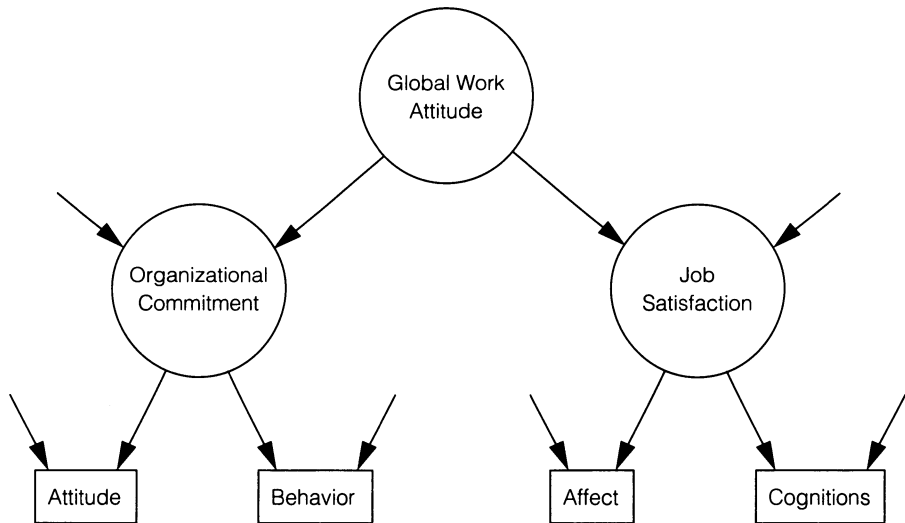
Apart from breadth and scope, modern theories of turnover formulate elaborate networks of structural associations among concepts (Price and Mueller 1981, 1986; Steers and Mowday 1981). Notwithstanding their complexity, prevailing models must undergo more theoretical refinement before they can be subject to proper confirmatory testing. Essentially, most theories of turnover fall short on one or more of the conditions that James, Mulaik, and Brett (1982) outlined for confirmatory analysis:

1. Formal statement of theory as a structural model
2. Theoretical rationale for causal hypotheses
3. Specification of causal order
4. Specification of causal direction
5. Self-contained functional equations
6. Specification of boundaries
7. Stability of structural model

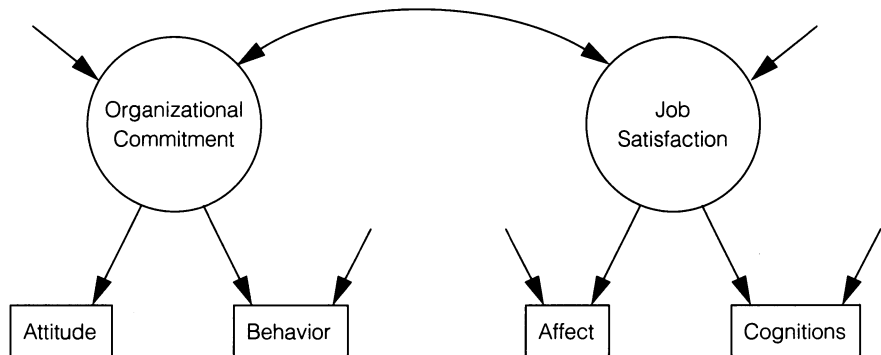
For example, Mobley, Griffeth, Hand, and Meglino (1979) and Hulin, Roznowski, and Hachiya (1985) specified causal order and directionality for sets of theoretical variables rather than for each variable. Still, they overlooked the way in which each component in an antecedent set impacts the components of a consequent set. By contrast, Price and Mueller (1981, 1986) more fully described causality, but left unspecified the way in which organizational conditions translate into job dissatisfaction, or how dissatisfaction translates into withdrawal decisions. Though confirmatory analysis does not require assessment (and representation) of micromediational mechanisms,



## Second-Order Factor Model



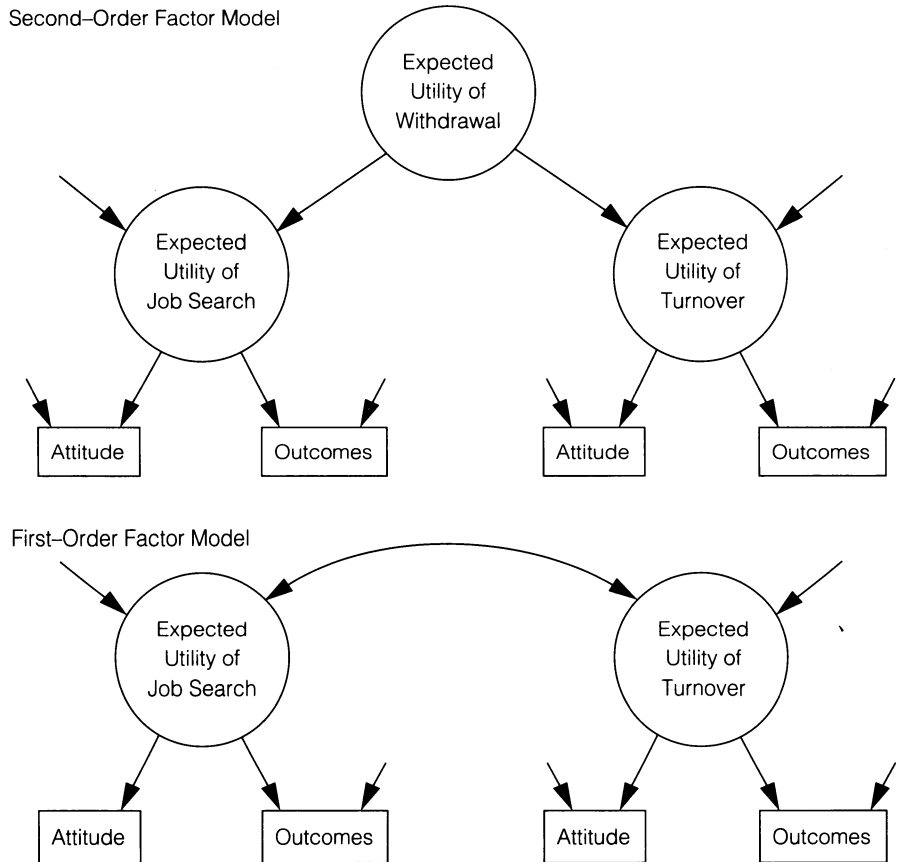
## First-Order Factor Model



**Figure 8-6 Measurement Models for Testing Viability of Higher-Order Factor**

such specifications nonetheless furnish a theoretical rationale for causal connections (James, Mulaik, and Brett 1982).

Most theorists of turnover assume, but do not justify, self-containment. Confirmatory analysis requires a self-contained theory that specifies all the relevant causes of each endogenous variable (*ibid.*). A relevant cause is an influence of an endogenous variable that covaries with its other influences. Omission of relevant causes can, however, bias estimates of the impact of measured causes (*ibid.*). Most theorists implicitly consider their models to generalize over time (stationarity) and across occupations and organizations



**Figure 8-7 Measurement Models for Testing Concept Dimensionality**

(limitless boundary conditions), assumptions that are increasingly being challenged (Cotton and Tuttle 1986; Hom and Griffeth 1991; Hom, Caranikis-Walker, Prussia, and Griffeth 1992). In summary, the seven conditions delineated by James, Mulaik, and Brett (1982) are essential for the proper confirmatory validation of turnover theories. Nevertheless, empirical testing of turnover models has proceeded despite paltry evidence or rationale for those preconditions.

In addition, examinations of theory have often applied inappropriate or inefficient statistical approaches (James, Mulaik, and Brett 1982). In particular, exploratory path analysis has often been used to evaluate models, each turnover determinant being regressed onto *all* the preceding antecedents (Hom, Griffeth, and Sellaro 1984; Mobley, Horner, and Hollingsworth 1978; Price and Mueller 1981; Lee 1988). This application of path analysis does not, however, represent confirmatory analysis, which prescribes the testing of theoretically dictated pathways, not every possible one (James, Mulaik, and Brett 1982). Apart from such misuse, researchers gener-

ally neglect to validate pathways that are omitted by their formulations (“the omitted parameters test,” *ibid.*). Most theories, especially parsimonious ones, imply the *absence* of causal connections, in addition to specifying connections. Yet the validity of so-called null pathways usually goes untested. Ordinary path analysis does not control random measurement error, which biases estimates of parameters. Measurement error can attenuate or inflate causal parameters, make estimates of zero parameters nonzero, or yield estimates with the wrong sign (Williams and Hazer 1986).

Single-sample model tests typically lack sufficient statistical power (Hunter and Schmidt 1990b). It is quite likely that weak statistical power undermines tests of structural networks in turnover theories. Because well-articulated causal networks imply highly correlated causes (hence, multicollinearity), large samples are necessary to insure stable parameter estimates (Hom, Caranikis-Walker, Prussia, and Griffeth 1992). Along these lines, small-sample tests may generate inconsistent parameter estimates, suggesting uneven model support across studies (see Dalessio, Silverman, and Shuck 1986). Yet fluctuating parameters may reflect error in the sampling rather than inconstancy in the model (Hunter and Schmidt 1990b).

### Structural Equation Modeling

Structural equation modeling (SEM) can overcome several of the aforementioned shortcomings of traditional model testing. SEM analysis requires an explicit declaration of the theory as a structural model and the justification of its causal hypotheses. Unlike path analysis, SEM can more accurately estimate the causal effects among constructs in turnover models by controlling random and systematic measurement errors (Bagozzi 1980; Dwyer 1983; Glick, Jenkins, and Gupta 1985). A two-stage SEM application that initially tests and refines the measurement model before evaluating the structural model can produce better support for the theory (Anderson and Gerbing 1988): The prior validation of indicants may enhance substantive validity (Schwab 1980). SEM can analyze panel data more powerfully to verify the causal assumptions of turnover models (Anderson and Williams 1992; Williams and Podsakoff 1989) and can assess more precisely the boundary conditions (Palich, Hom, and Griffeth, *in press*) and the stability of the model over time (Hom and Griffeth 1991).

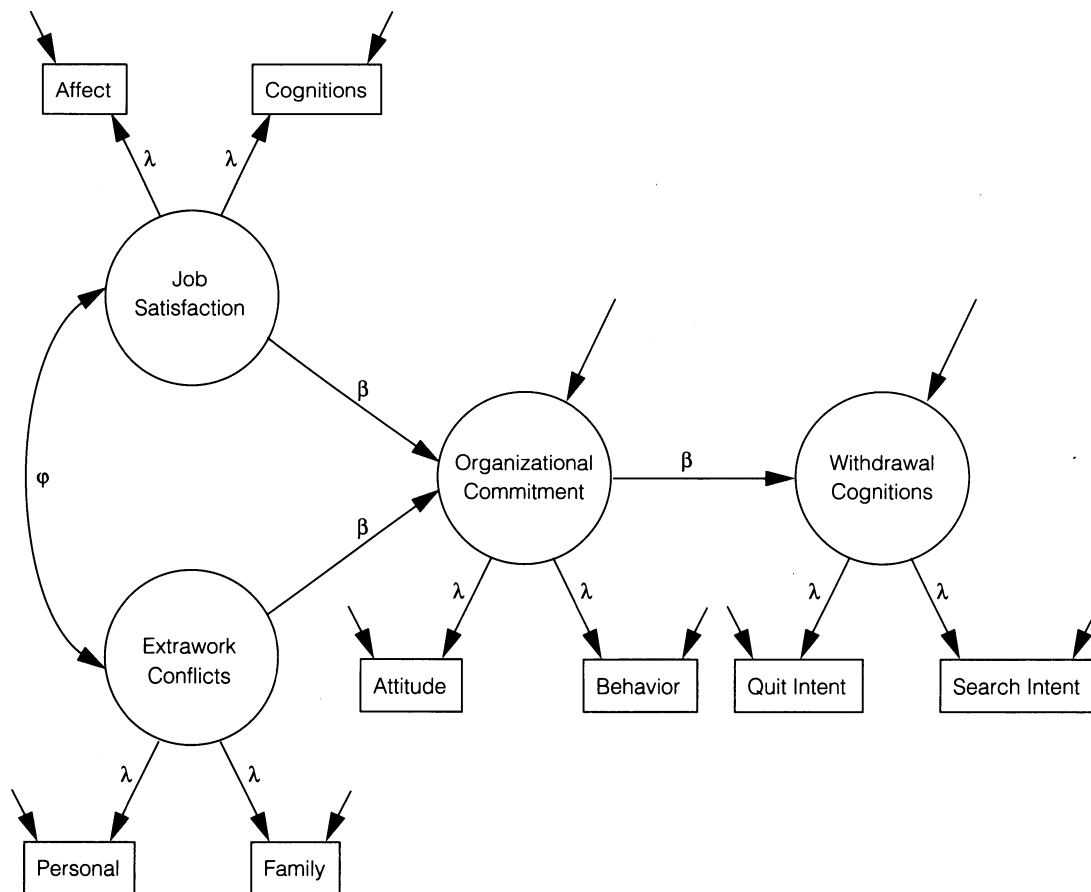
To control measurement error, SEM users must assess each construct with multiple indicators and then estimate a measurement model (relating indicators to constructs) that disattenuates structural relationships from random errors (Dwyer 1983). (An alternative method is to test a path model with one indicator per construct [the “manifest variables” model] using SEM to set measurement parameters based on reliabilities [see Williams and Hazer 1986].) SEM analysis then simultaneously estimates both measurement and structural models, which together constitute the Latent Variables (LV) Structural Model. An LV turnover model, in which latent variables (factors) are depicted with circles and manifest variables (indica-

tors) with boxes, is shown in Figure 8-8. Straight arrows from circles to boxes represent indicator loadings on latent variables; straight arrows among circles represent causal effects among latent variables. Curved arrows portray correlations among exogenous causes and short arrows without source variables and pointing toward boxes signify measurement errors. Arrows impinging on circles signify disturbances—other omitted causes of endogenous variables. Like the CFA measurement model, the measurement submodel prescribes a certain pattern of factor loadings ( $\lambda$ ) between indicators and latent factors. (To define its metric, each factor must have one factor loading fixed at 1.0 [Hayduk 1987].) The structural submodel of the LV Model depicts theorized structural relations ( $\beta$ s: causal effects) among factors. The structural submodel essentially embodies the substantive theory.

Using one of several estimation methods (e.g., maximum likelihood), SEM simultaneously derives estimates for the measurement and causal parameters that maximally recompute observed covariances. Here again, we interpret omnibus fit indices and parameter estimates to judge model fit. Acceptable fit statistics support the overall LV Model. Significant (sizable) factor loadings uphold the measurement submodel; significant causal parameters (carrying the correct signs) uphold the structural submodel. Nested model comparisons further test the turnover theory (Anderson and Gerbing 1988). James, Mulaik, and Brett (1982) prescribed the following sequence (shown in Figure 8-9) of nested models: Measurement Model; LV Structural Model; and a Structural Null Model. The LV Structural Model is actually nested within the Measurement Model, specifying certain but not all, relationships among factors according to the substantive theory. First we validate the Measurement Model. Anderson and Gerbing (1988) suggested testing various measurement models to find the best-fitting one. Though exploratory, separate estimation, and possibly respecification, of the measurement model before assessing the structural model may reduce “interpretational confounding.”

Finding a tenable measurement model, we compare that model to the LV Structural Model. Minimal differences between the models indicate that the more restricted, causal structure accurately (and more parsimoniously) explains covariances among latent factors. Given a well-fitting LV Structural Model, we then contrast it with Structural Null Model that is nested within the LV Structural Model, with all causal parameters set to zero. This comparison measures the variance explained by the set of causal parameters. A large disparity between models would require the rejection of the Structural Null Model and prescribes the structural parameters as essential for model fit.

Williams and Hazer (1986) further proposed testing less restrictive versions of the LV Structural Model. Testing omitted parameters, these versions introduce superfluous causal pathways not posited in the turnover theory (James, Mulaik, and Brett 1982). In our example, an alternative structural model might prescribe that satisfaction and extra work conflict directly affect withdrawal cognitions. SEM assessment of this model that reveals these extra



**Figure 8-8 Latent Variables Structural Model**

pathways to be nonsignificant then further corroborates the original structural model, which supposes no direct effects for satisfaction and conflict on withdrawal cognitions.

**Competitive Testing** Most examinations of theory try to validate a single turnover model. The examined model may plausibly fit data, but untested alternatives may provide even closer fits (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Mobley and Meglino 1979). Thus, a comparison of alternative formulations would more conclusively establish the relative validity of models (Platt 1964). Given the burgeoning numbers of turnover models, competitive testing is becoming imperative so that less valid models might be discarded in favor of more valid ones.

SEM can facilitate competitive theory testing in two ways. First, SEM supplies more diagnostic indices of model fit. The few comparative examinations of turnover models that have been made have focused exclusively on

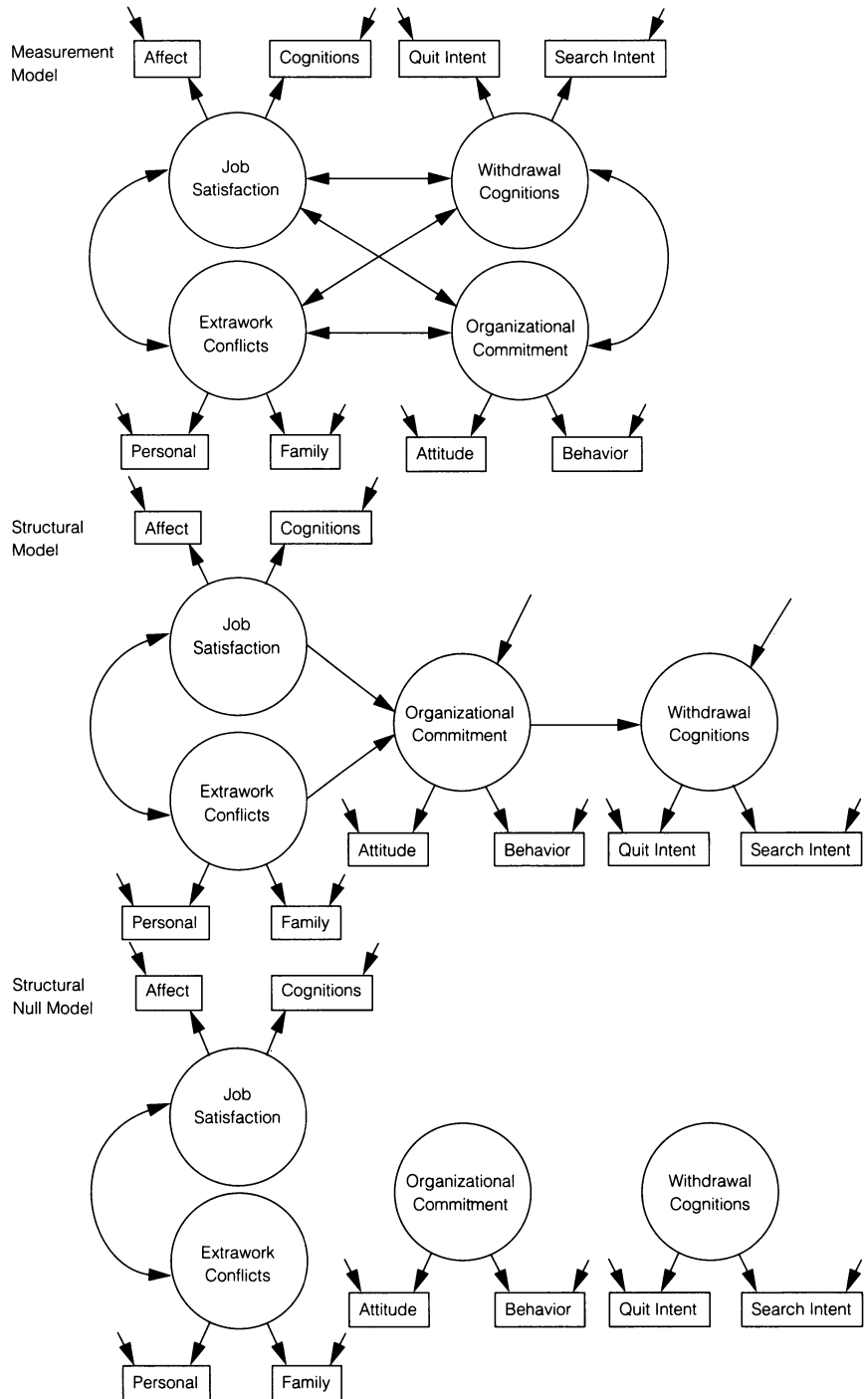
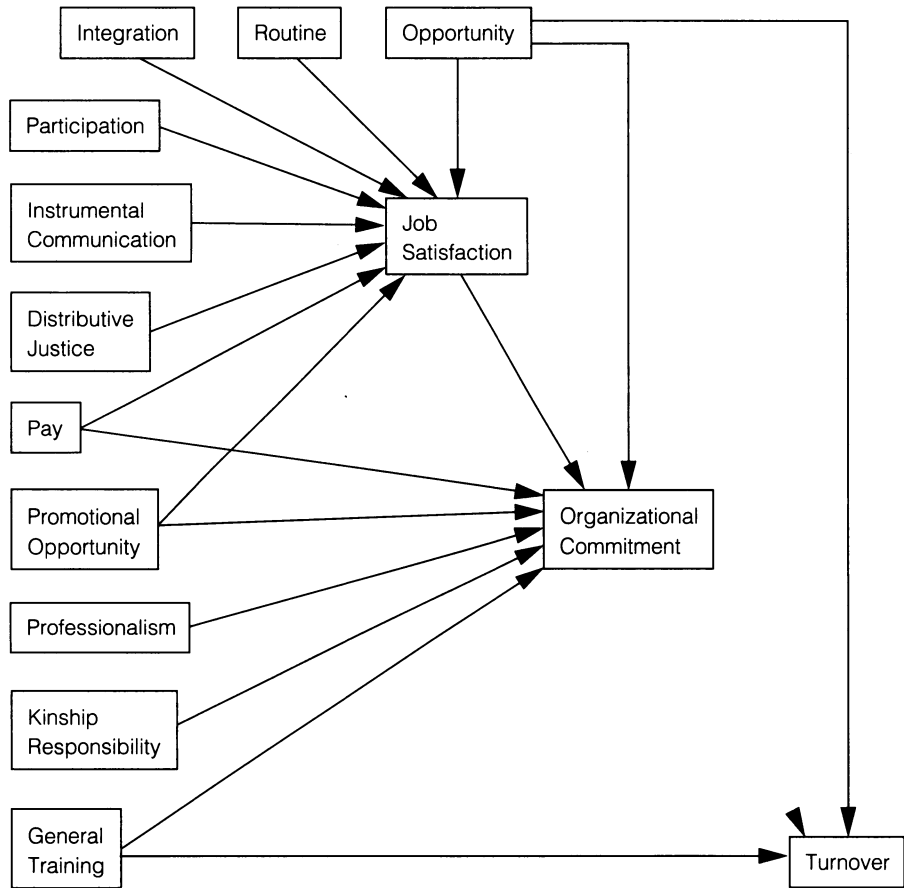


Figure 8-9 Nested Model Sequence

predictive validity (Hom and Hulin 1981), neglecting substantive or nomological validity (Griffeth and Hom 1990). SEM analysis can assess the relative nomological validity across models, using parameter estimates and omnibus fit indices (James, Mulaik, and Brett 1982). Second, SEM can statistically compare competing models that are nested within one another (Netemeyer, Johnson, and Burton 1990; Williams and Hazer 1986).

To illustrate this SEM application, we report a study (Griffeth and Hom 1990) comparing two leading turnover models: a variant of Mobley's 1977 model produced by Hom, Griffeth, and Sellaro (1984), and Price and Mueller's models (1981, 1986). In spite of the extensive research on which they are based, these models have not been directly compared in one study. The comparison constituted a relatively fair competitive test (Cooper and Richardson 1986). Given the development and refinement of model measures over a long period, both models can be operationalized with considerable, if not equal, fidelity and care (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Dalessio, Silverman, and Schuck 1986; Mobley, Horner, and Hollingsworth 1978; Price and Mueller 1981, 1986). The Price-Mueller and Hom, Griffeth, and Sellaro models are shown in Figures 8-10 and 8-11, respectively. Griffeth and Hom (1990) found similar predictive validities for both models but higher nomological validity for Hom, Griffeth, and Sellaro's theory. Because these models emphasize different withdrawal stages, Griffeth and Hom then designed an integrated model, shown in Figure 8-12, combining promising constructs from both models (*ibid*). SEM tests upheld the predictive and nomological validity of this synthesis. Although it is not an inevitable outcome, competitive testing can generate an unifying framework integrating several theories.

Along similar lines, SEM competitive testing can compare concepts from different theories to identify potential construct redundancy (Griffeth and Hom 1988a). Such examinations may reverse the growing confusion when different theorists name similar concepts differently (see Baysinger and Mobley 1983). Using SEM, Cabrera, Castaneda, Nora, and Hengstler (1992) tested the equivalence between concepts from two theories of student attrition from college. Both models, proposing that student feelings of belongingness to the college reinforce student retention, defined and measured the concept differently: one as institutional commitment, the other as institutional fit. To measure components of these models, Cabrera and his colleagues administered a survey to 466 entering college freshmen and accessed personnel files to learn about their grade point averages and their continued enrollment a year later. Analyzing these data, the researchers set up several nested measurement models to test the convergence of concepts from different theories of college attrition. Taking a concept from each model, the initial model posited two correlated factors (institutional commitment and institutional fit) and their respective measures as indicants of those factors. This model was then compared with an orthogonal two-construct model (positing uncorrelated factors) and a one-construct model (positing perfect correlation). SEM tests rejected the orthogonal factor

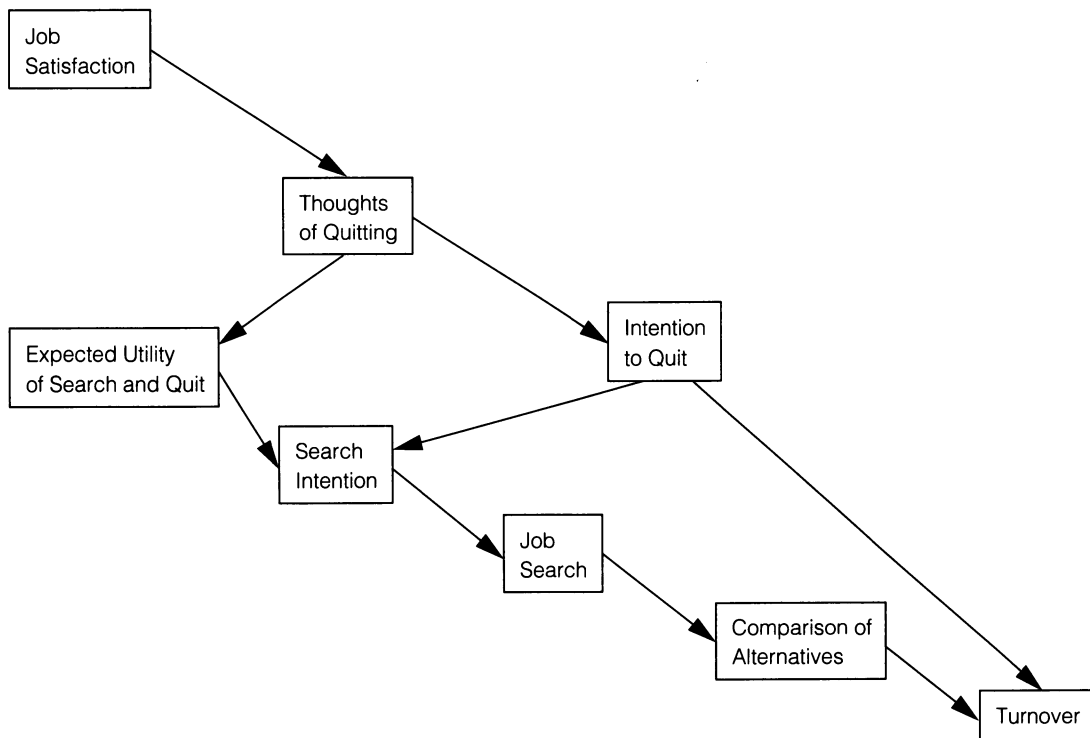


**Figure 8-10 Revised Price-Mueller 1981 Model of Turnover.** (J. Price and C. Mueller, "A causal model of turnover for nurses." *Academy of Management Journal*, 24 (1981): 547.)

model but sustained the initial and one-construct models. Because the latter two models fit data equally well, these results imply that institutional commitment and fit were equivalent concepts. SEM can detect equivalence in constructs from different models that may be defining and operationalizing those constructs differently. An SEM approach may develop an integrative framework in which models may be combined (*ibid.*), thereby eliminating superfluous models and concepts in order to generate more parsimonious explanations.

**Method Bias** If constructs are represented by various different assessment procedures, SEM can control for method bias in estimating structural parameters (Glick, Jenkins, and Gupta 1986). For example, we might test the MTMM model in Figure 8-3 but specify the causal effects among the traits, such as commitment affecting satisfaction. SEM could estimate the structural



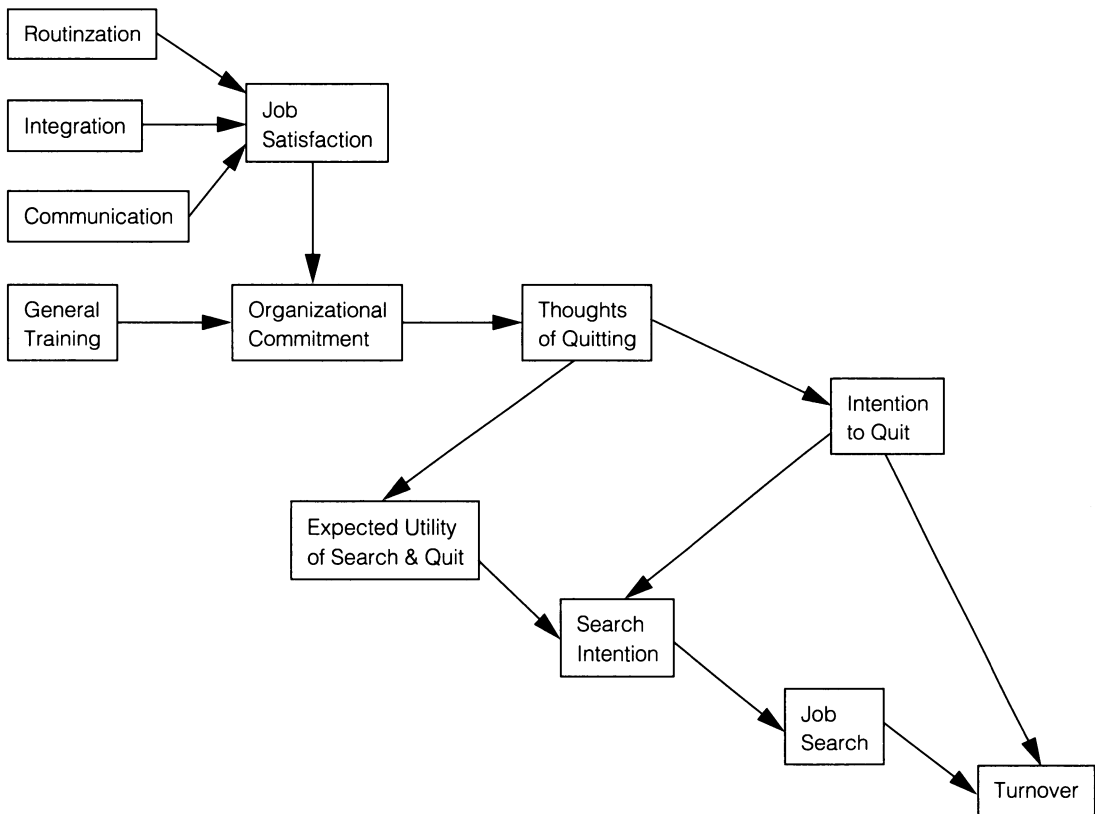


**Figure 8-11 Hom, Griffeth, and Sellaro's Model of Turnover.** (P. W. Hom, R. W. Griffeth, C. L. Sellaro, "The Validity of Mobley's model of employee turnover." *Organizational Behavior and Human Performance*, 34 (1984): 166.)

parameters, adjusting for the biasing effects of systematic and random measurement errors.

**Categorical Variables** Many authors have condemned the use of an ordinary least-squares regression to predict a binary dependent variable such as turnover (Harrison and Hulin 1989; Huselid and Day 1991) because it produces severe statistical problems. First, predicted turnover values may fall outside 0–1 boundaries, generating meaningless results. Second, heteroscedastic and nonnormal errors derived from the analysis of a dichotomous dependent variable may well invalidate coefficient *t* tests. Third, estimates of the marginal effects of an independent variable may be biased because they depend on the mean value of the dependent variable. Illustrating this pitfall, Huselid and Day (1991) showed dramatically divergent conclusions yielded by a least-squares regression and a more correct logistic regression.

The same objections extend to SEM tests of turnover models because SEM procedures assume continuous interval-scaled variables (Jaros et al.



**Figure 8-12 Integrated Model of Turnover. (R. W. Griffeth, and P. W. Hom (1990, August). Competitive examination of two turnover theories: A two-sample test. Paper presented at the annual convention of the Academy of Management, San Francisco, CA: 21.)**

1993). To offset this limitation, Muthen (1987, LISCOMP) and Joreskog and Sorbom (1989, LISREL 7) developed new estimation procedures that handle categorical (binary, ordinal) variables and analyze polychoric and polyserial correlations derived from observed categorical data. For example, Hollis and Muthen (1987) compared LISCOMP and LISREL maximum likelihood estimates for clearly categorical data and found that LISCOMP produced more efficient (and less biased) estimates of parameters and a more valid model chi-square test and standard errors.

To show its relevance for turnover, we estimated a simple model, on a large sample of four hundred retail store employees, comparing LISREL 7's categorical-data option with its maximum likelihood method (which presumes interval scales). The model proposes that job satisfaction impacts withdrawal cognitions, which in turn affects quits. Moreover, satisfaction directly influences turnover. The model is illustrated in Figure 8-13, in

which the categorical parameter estimates are noted; the maximum likelihood parameters having been included in parentheses. Factor loadings were consistent across both estimation procedures. The structural parameters, especially those for the direct effects of antecedents on turnover, diverged. The categorical method estimated larger parameters and superior fit statistics:

categorical  $\chi^2(33) = 91.68$  ( $p < .05$ ) and Goodness-of-Fit = .991

compared with

maximum likelihood  $\chi^2(33) = 209.39$  ( $p < .05$ ) and Goodness-of-Fit = .904.

In conclusion, new categorical SEM procedures may reveal a higher substantive validity for turnover theories because they relax unrealistic interval-scaling requirements (see Jaros et al. 1993). Still, these methods demand larger samples, limiting their usage (Joreskog and Sorbom 1989). Our illustration disclosed that maximum likelihood estimates of structural relations among turnover causes and the measurement structure closely matched categorical estimates, although they underestimated the linkages between antecedents and quit. Generalizing from this simple demonstration, we may say that the maximum likelihood procedure most attenuates the direct causal effects from the antecedents to turnover. It may, however, produce reasonably correct estimates of structural relations among determinants, the substance of most turnover formulations, as well as factor loadings. All the same, some authors contend that turnover is truly a categorical variable, disputing LISCOMP and LISREL 7 corrections that presume turnover to be a continuous variable formed by dichotomizing company tenure (Williams 1990).

**Cautionary Remarks** With the growing popularity, SEM tests of turnover models risk becoming abused. Unidentified models and unmeasured variables are most likely to plague current SEM analyses. For one, SEM applications usually do not verify model identification to establish that model parameters can be uniquely estimated given the information available in the covariance matrix (Bollen 1989). Without such preliminary scrutiny, SEM assessments of under identified models may yield misleading parameter estimates. Thus, SEM users should establish model identification before evaluating turnover models (ibid.). Moreover, SEM investigations of withdrawal models routinely neglect (or incompletely state) the theoretical rationale for the self-containment of functional equations. As James, Mulaik, and Brett (1982) warned, the omission of relevant causes biases estimates of causal effects among measured determinants. To satisfy this condition, prevailing frameworks may well demand additional theoretical refinement and extension. It is more than likely that current theories do not specify *all* the relevant causes of each and every endogenous variable in their conceptualizations.

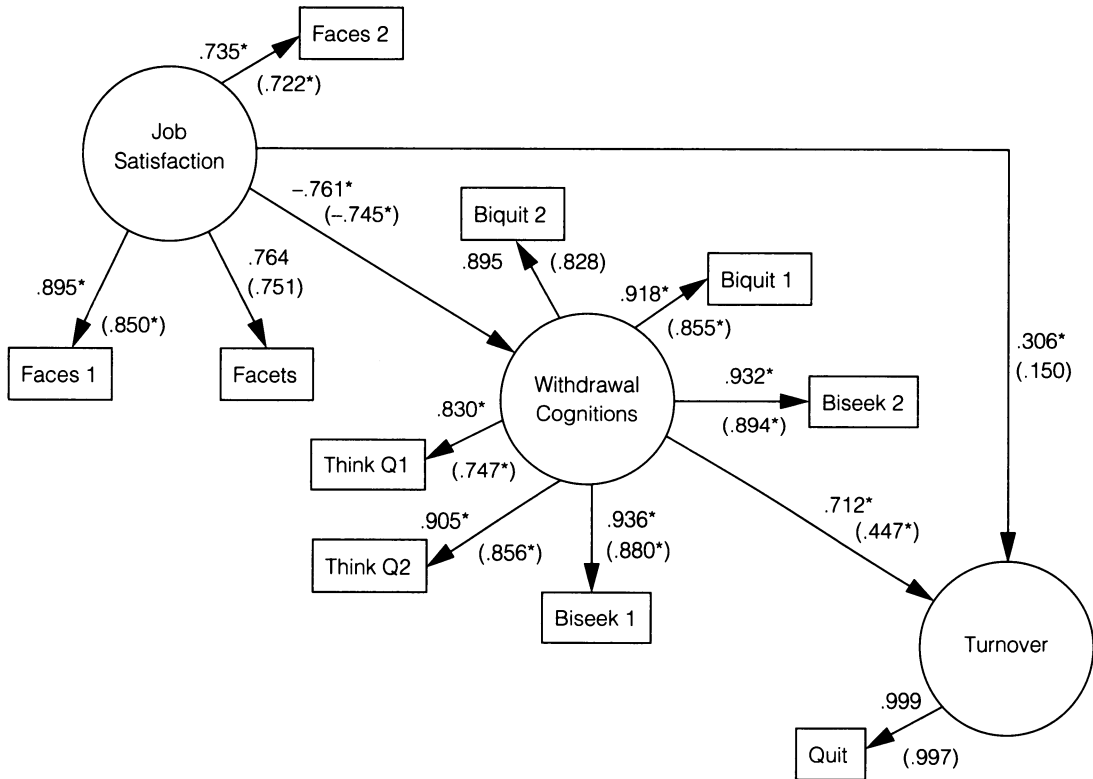


Figure 8-13 Lisrel Analysis of Categorical Variables

## PANEL ANALYSES

Causal priorities in turnover models are rarely validated. Given pervasive cross-sectional surveys, turnover researchers assume that causal order and direction hold while they are testing their models (Mobley 1982a). While unable to rival true experimentation for causal inference, panel designs—repeated administrations of a survey—can estimate causal effects more accurately than can ubiquitous cross-sectional designs (Aronson, Ellsworth, Carlsmith, and Gonzales 1990; Dwyer 1983). Cross-sectional assessments substitute observed *intraindividual* changes for observed *interindividual* differences (Dwyer 1983). Several longitudinal studies have documented the bias in this substitution (Bateman and Strasser 1983, 1984; Curry, Wakefield, Price, and Mueller 1986; Farkas and Tetrick 1989). Even so, panel research remains underused.

Uncertainty over the timing of surveys and the appropriate statistical analyses partly explain why panel data are rarely collected. Turnover theories universally neglect causal lag times (Sheridan and Abelson 1983), providing no guidelines on time intervals between survey waves to capture lag times.

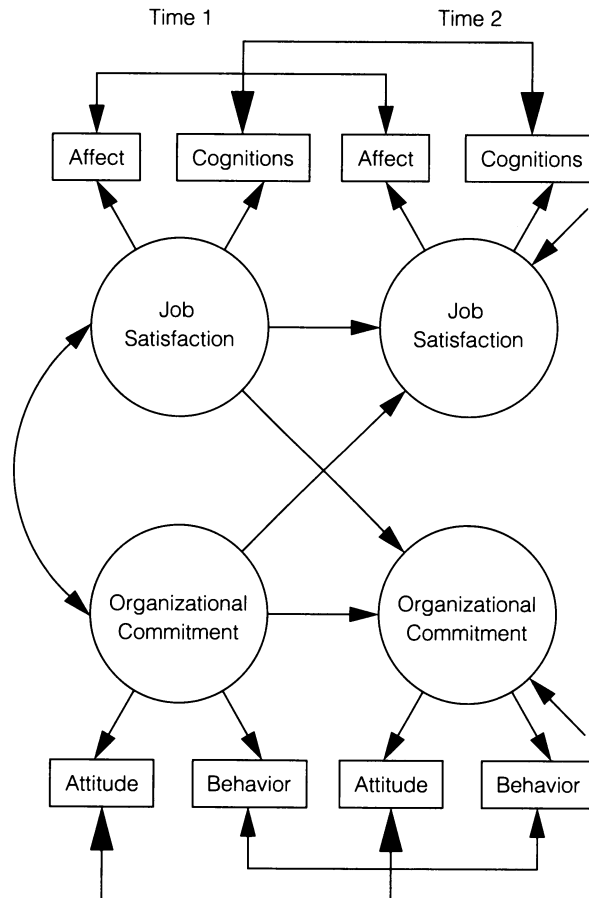
Considerable controversy has raged over proper panel analyses. Traditionally, in panel research, correlations between variables assessed at different times have been compared. Yet differing variable stabilities and variances can bias such cross-lagged panel correlations (Rogosa 1980). More recent tests have applied cross-lagged regression (Bateman and Strasser 1983, 1984) or path analysis (Curry et al. 1986; Farkas and Tetrick 1990) to evaluate lagged causal impact of Time-1 variables on Time-2 variables. Though superior to cross-lagged correlations, these procedures do not control autocorrelated measurement errors, emanating from repeated model assessments, which can distort causal estimates (Anderson and Williams 1992; Dwyer 1983).

### Structural Equation Modeling for Panel Data

Williams and Podsakoff (1989) proposed Latent Variables (LV) SEM as a more powerful procedure for analyzing longitudinal data and for empirically specifying temporal parameters in turnover formulations. We next describe this promising approach.

**Causal Order and Direction** Suppose we seek evidence about causal priority between two latent constructs: job satisfaction and organizational commitment. We would undertake a panel survey and measure these constructs, using multiple indices, on two occasions. Then, we develop a baseline LV Structural Model, such as that shown in Figure 8-14. Unlike a cross-sectional model, this panel model can control autocorrelated measurement errors—a bias introduced by repeating measures (Bentler 1987; Hom and Griffeth 1991)—by estimating correlations between errors across occasions (portrayed by arrows connecting two boxes). This model also specifies the time-lagged effect of each variable onto itself, the source of its temporal stability. For instance, Time-1 satisfaction is depicted as impacting Time-2 satisfaction. The specification of the effect of Time-1 satisfaction on Time-2 commitment and of the impact of Time-1 commitment on Time-2 satisfaction in this model estimates lagged causal effects.

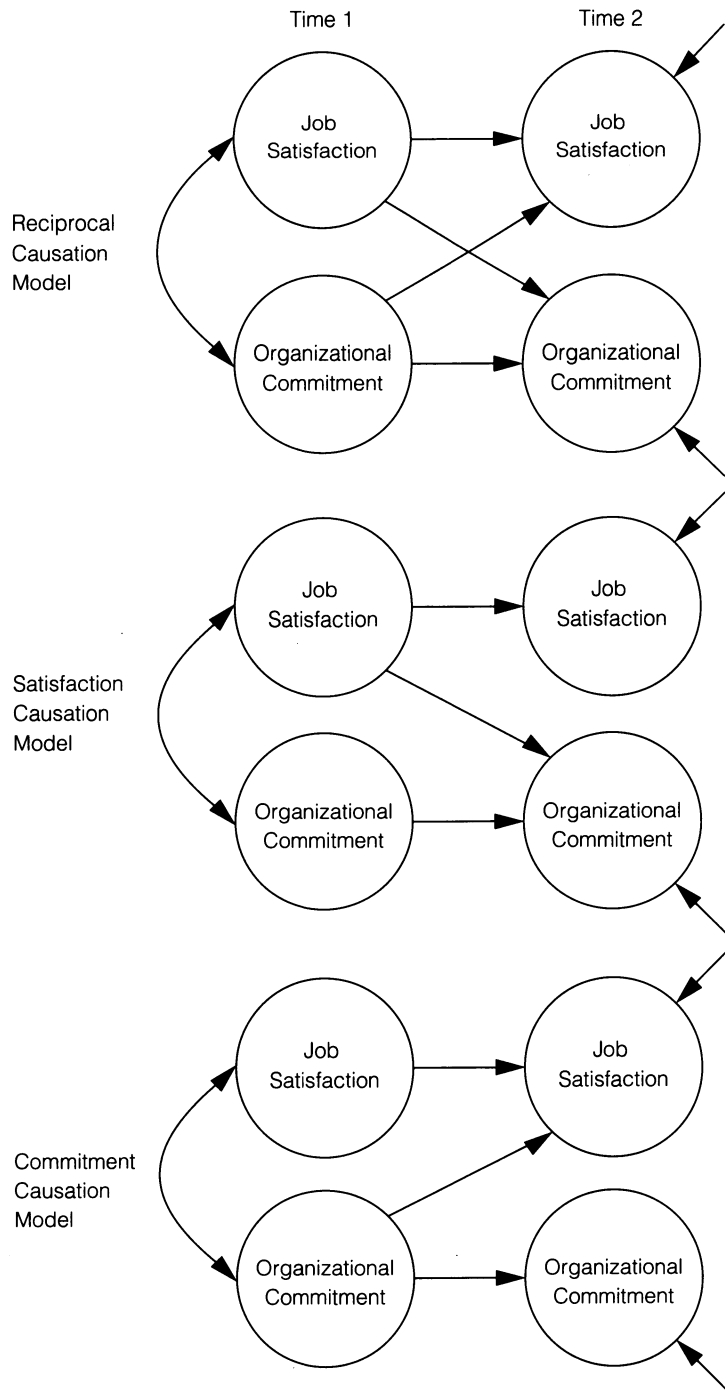
Other nested models, which are shown in Figure 8-15 without measurement submodels, verify causal order and direction. The first model (reciprocal causation) posits a lagged reciprocal causation between attitudes and is the baseline model against which others are compared. Assuming that the baseline model fits the data, we compare it to the satisfaction causation model, specifying only a lagged satisfaction effect. If this model matches the baseline model's fit and its causal parameter is significant, satisfaction "causes" commitment. If the commitment causation model approximates the baseline model's fit better than does the satisfaction causation model and yields a significant commitment lagged influence, commitment "affects" satisfaction. Reciprocal causation is, however, indicated by the superior fit in the baseline model relative to the other models and significant estimates for its two lagged causal parameters. All causal lagged effects are refuted if the baseline model badly fits data and it estimates no significant causal influences.



**Figure 8-14 Panel Model Showing the Causality Latent Variables**

Dwyer (1983) demonstrated, however, that alternative, spurious models may underlie significant cross-lagged causal influences. Two such models, which may simulate lagged effects between satisfaction and commitment, are shown in Figure 8-16. Model I is a synchronous, common-factor model, in which a common factor underlies all attitudinal measures. Model II is an unmeasured variables model, wherein  $X$  and  $Y$  are unmeasured variables related to all Time-1 variables. The latter model specifies that  $X$  exerts lagged effects on Time-2 satisfaction indices and  $Y$  has lagged effects on Time-2 commitment proxies, generating spurious effects between attitudes. Besides testing substantive theory, Dwyer (ibid.) recommended that spurious models be assessed and refuted to validate more rigorously lagged causation.

Along similar lines, longitudinal models of causation between employee attitudes are generally misspecified because they often exclude many causes, including common antecedents of attitudes (Anderson and



**Figure 8-15 Causality Compared in Nested Models**

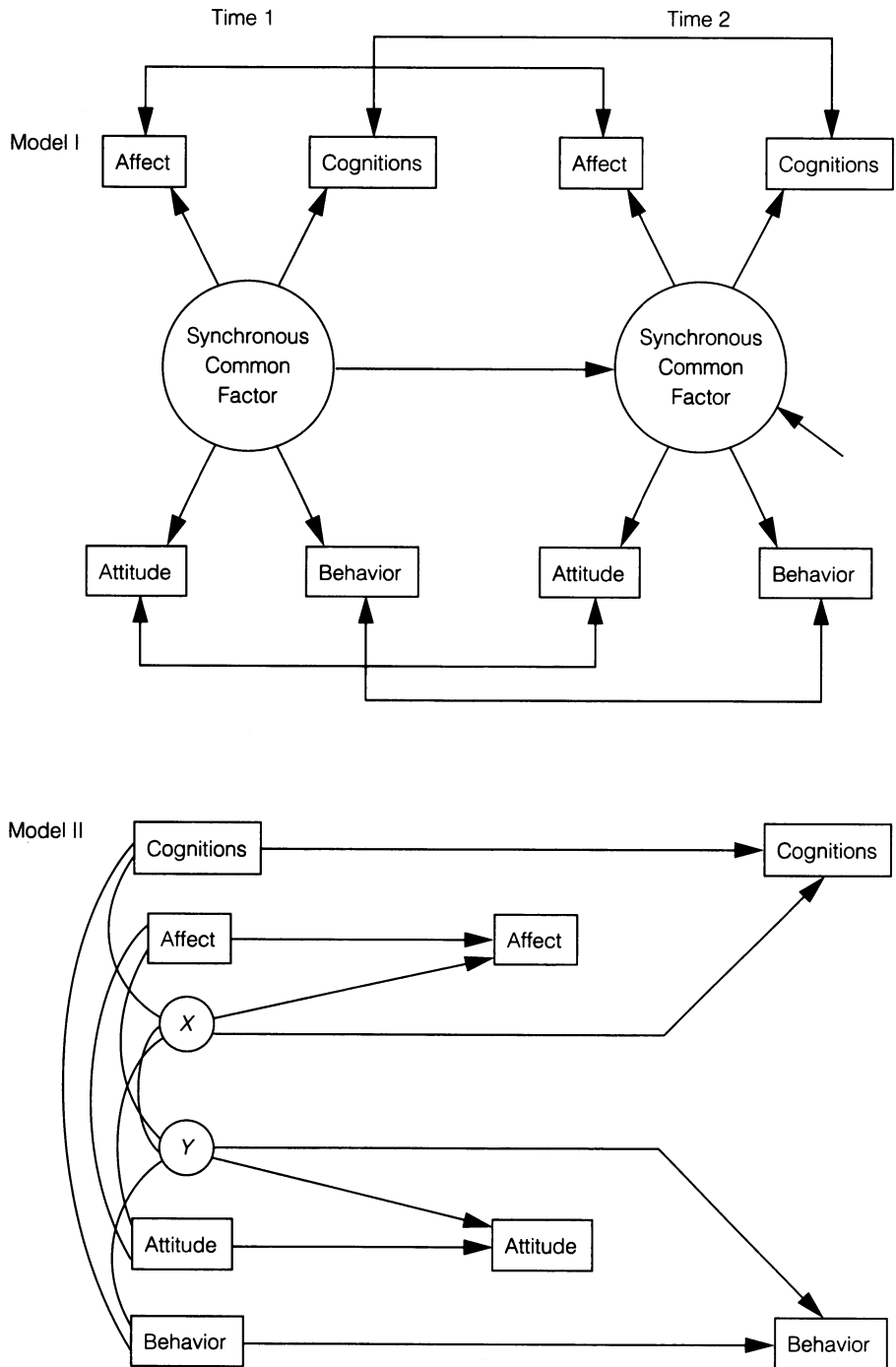


Figure 8-16 Spurious Models

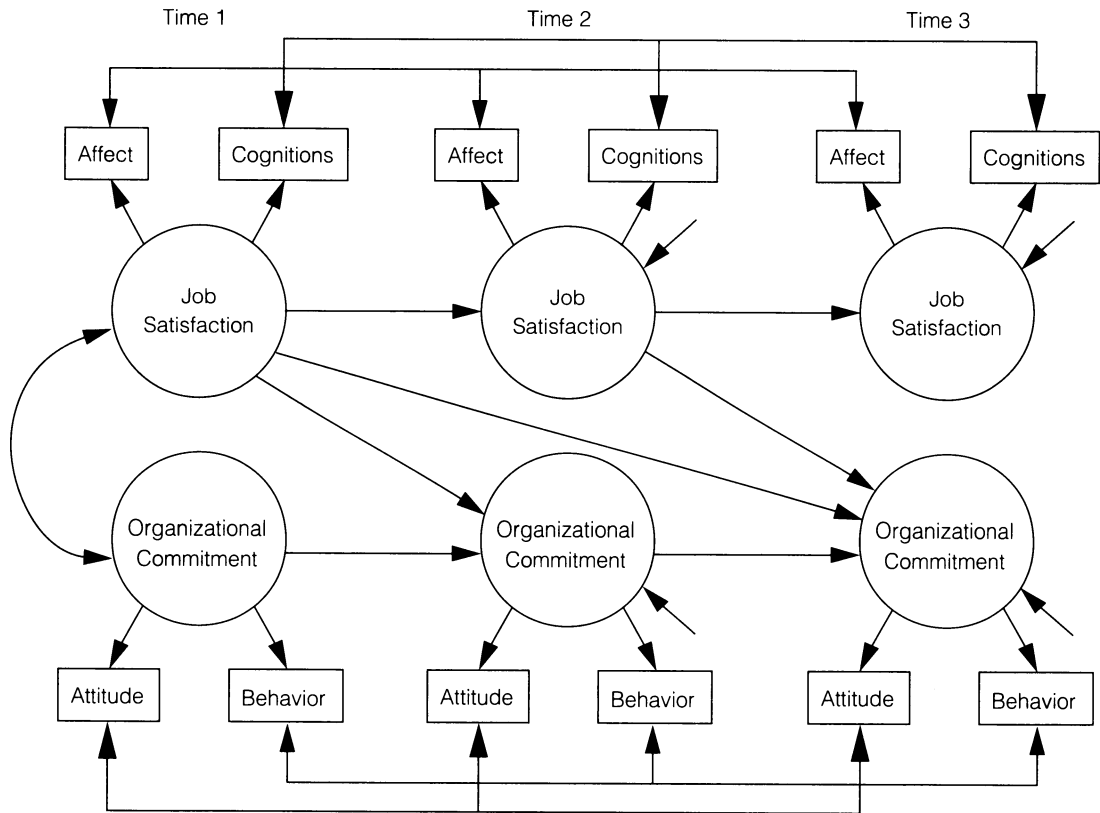


Williams 1992). If stable, these unmeasured causes can induce correlations between disturbances across time periods and thus distort estimated lagged causal effects. Anderson and Williams (*ibid.*) compared two panel models of reciprocal effects between satisfaction and commitment, one with and one without correlated disturbances. The model specifying no correlated disturbances—an invalid assumption given the exclusion of many attitudinal causes—estimated lagged causal effects; the (correct) model, which did have correlated disturbances (to represent omitted causes), revealed few lagged effects. Consequently, Anderson and Williams recommended that SEM users estimate between-time (and within-time) correlations among disturbances if their panel models exclude relevant (and stable) causes. By taking into account disturbance correlations, SEM tests of even misspecified models that omit relevant causes would more accurately assess lagged causal influences.

Notwithstanding its rigor, SEM panel analysis necessitates certain tradeoffs. To control and estimate autocorrelated errors (and random errors), we require several indicators per concept to secure identification. On top of this, we must measure *all* the relevant causes of each endogenous variable to avoid the problem of unmeasured variables (James, Mulaik, and Brett 1982). Yet the addition of multiple indicators may compound panel attrition because the survey is so long (Dillman 1978; Kessler and Greenberg 1981). As a compromise, we might limit the length of the survey to indicants of a few model constructs and initially test causality among those few constructs rather than evaluate an entire structural network (Farkas and Tetrick 1989). Conceivably, an SEM test of the panel model might reduce bias caused by unmeasured variables by estimating correlated disturbances (Anderson and Williams 1992).

**Causal Lag** Because temporal parameters are missing from turnover models (Miller, Katerberg, and Hulin 1979), SEM analysis might empirically specify causal lags (Kessler and Greenberg 1981; Morita, Lee, and Mowday 1989). Sims and Szilagy (1979) pioneered an empirical method to estimate causal lag times. They reviewed cross-lagged correlations based on varying measurement lags from multiple studies. They pinpointed the causal lag as that measurement lag yielding the largest cross-lagged correlation difference.

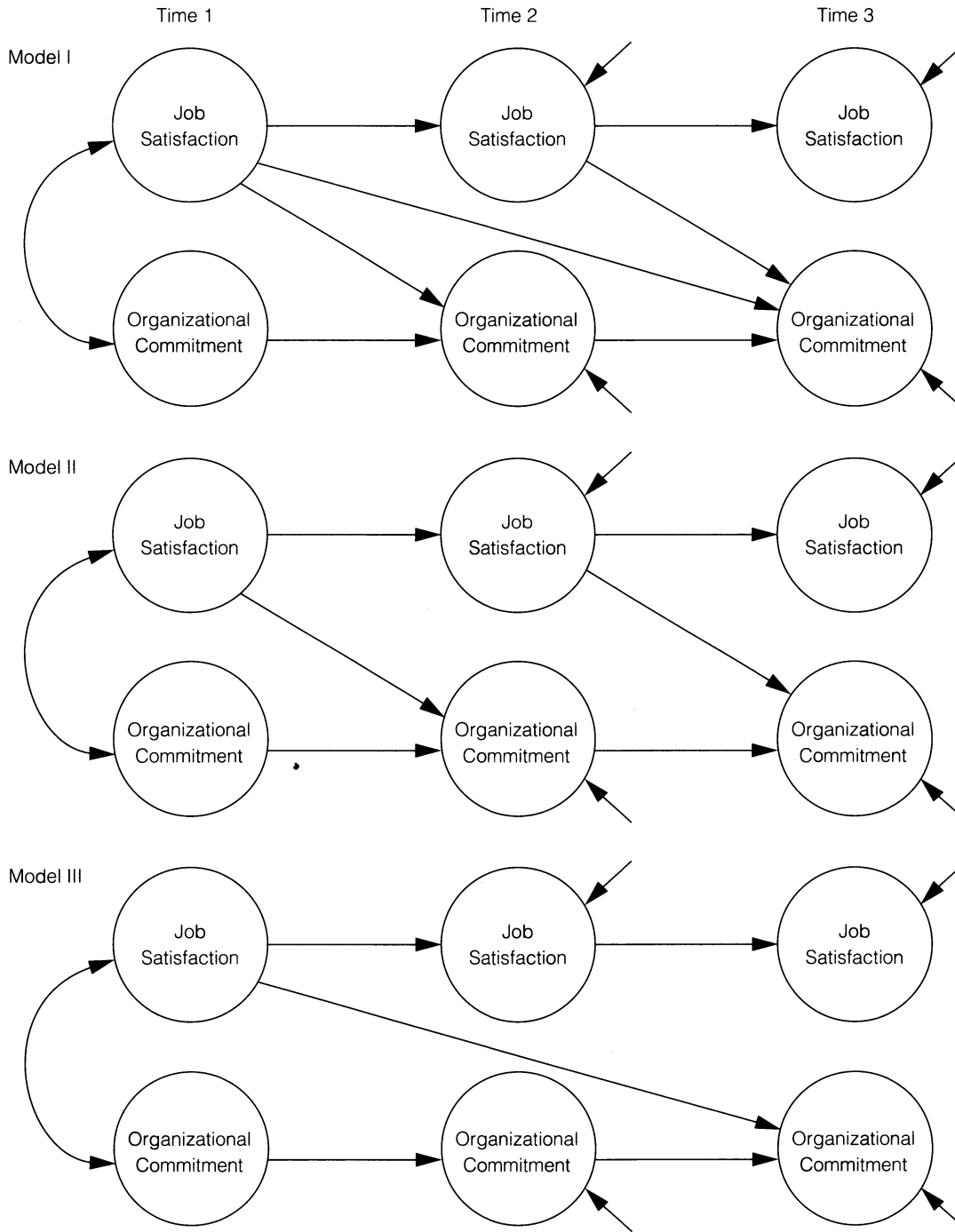
Refining this approach, Williams and Podsakoff (1989) applied SEM analysis to estimate causal lag times from several waves of observations taken at equal time intervals. A three-wave LV panel model specifying causal influence from satisfaction to commitment is shown in Figure 8-17. Like a two-wave model, this model specifies covariances between measurement errors and autoregressive effects between adjacent time periods. Assuming that satisfaction causes commitment (and not the reverse), this model estimates brief (first-order effects between adjacent periods, such as: Time-1 satisfaction affects Time-2 commitment) and extended (second-order effect from Time-1 variable to Time-3 variable, such as: Time-1 satisfaction affects Time-3 commitment) lagged effects for satisfaction.



**Figure 8-17 LV Panel Model Showing Causal Lag Time**

This panel model serves as the baseline model for comparisons with the nested models shown in Figure 8-18 without the measurement submodel. Assuming the baseline model (Model I) fits data, we test a nested model (Model II) specifying only first-order lagged effects. If this model explains data as closely as Model I does and estimates significant lagged estimates, the causal interval falls between adjacent observation periods (that is, first-order). Conversely, the causal lag spans the first and third observation times if Model III (positing only a second-order lagged impact) matches Model I's fit and yields a significant lagged effect. Poor fitting Models II and III and all significant lagged parameters in a well-fitting Model I suggest a distributed lagged effect. That is, the influence of satisfaction on commitment is distributed over a period of time rather than occurring at one time (Kessler and Greenberg 1981). Last, if Model I estimates no significant causal parameters, lagged effects are nonexistent.

This empirical approach is not without its limitations. We can rely on background knowledge and intuition, but the specification of survey timing is still somewhat arbitrary. If measurement lags are too long, we might miss



**Figure 8-18 Comparisons with Nested Models to Identify Causal Lags**

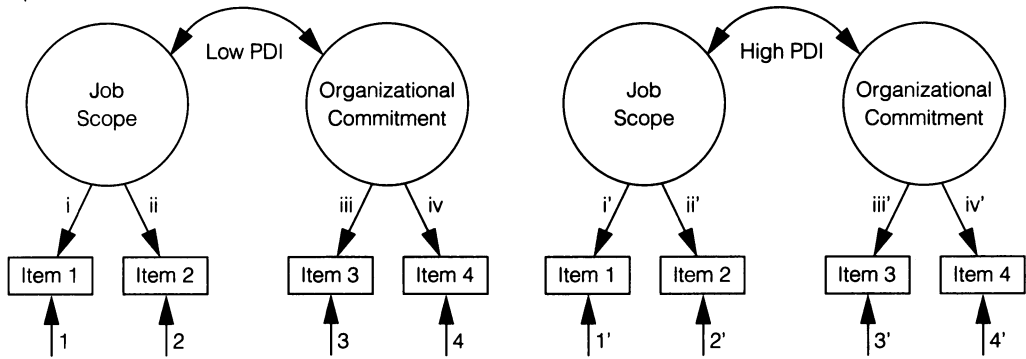
the causal duration (Curry et al. 1986; Farkas and Tetrick 1989) and falsely conclude that there is no lagged causation (Anderson and Williams 1992). As a possible remedy, we might measure theoretical constructs more often—over more closely spaced intervals of time (see Rossé 1988). Although difficult, finer panel measurement may more precisely pinpoint the actual causal lag time or trace the shape of distributed causal effects.

### SEM Tests of Boundary Conditions

Most theorists on turnover neglect boundary conditions for models, implicitly assuming model universality. Growing evidence of correlations between predictors and turnover (Cotton and Tuttle 1986) and structural relations in models (Dalessio, Silverman, and Shuck 1986; Hom, Caranikis-Walker, Prussia, and Griffeth 1992) diverging across occupational lines contravenes this assumption. On rare occasions, researchers have evaluated model generality by estimating a model separately in subpopulations and comparing causal relationships (Dalessio, Silverman, and Shuck 1986; Peters, Jackofsky, and Salter 1981). Several methodological weaknesses plague this approach. Multiple comparisons may not be independent and inflate Type-I error rates (Palich, Hom and Griffeth in press). Unequal scale validity or reliability across subgroups may exaggerate variations in structural networks between groups (see Hunter and Schmidt 1990b; Schaubroeck and Green 1989).

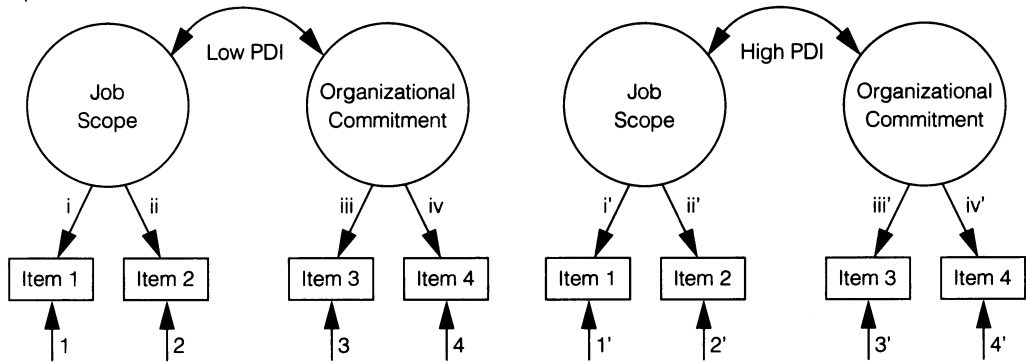
SEM analysis can more efficiently and validly compare model parameters between subpopulations (Bollen 1989). Controlling Type-I error, SEM can compare entire sets of structural parameters across subgroups by comparisons of nested models (James, Mulaik, and Brett 1982). This procedure can correct for varying qualities of instrumentation across subpopulations (Bollen 1989). To illustrate, we relate an example from Palich, Hom and Griffeth (in press), who tested the generality of a measurement model across different cultures before comparing the structural model. That is, they used LISREL 6's multisample option to investigate a series of nested comparison models, that successively constrain measurement parameters to be equal between cultural subgroups (Bollen 1989; Podsakoff, Williams, and Todor 1986). These comparison models used for testing the stability of a measurement model for organizational commitment and its antecedent between subpopulations varying on the Power Distance Index (PDI, Hofstede 1980) are shown in Figure 8-19. (Power distance is a cultural dimension that describes the extent to which members of a given culture accept unequal distribution of institutional and organizational power. Thus, the United States has a low PDI score but Japan has a high PDI score.) In Comparison Model I, factor loadings (indices of validity) and measurement error variances (inversely related to reliabilities) differ between high- and low-PDI subsamples. Palich, Hom and Griffeth found that this model explained data and produced all significant factor loadings. They next evaluated Comparison Model II, in which factor loadings are equated across cultural subgroups. Model II reproduced data as well as Model I did, implying that factor loadings across PDI subgroups are

Comparison Model I



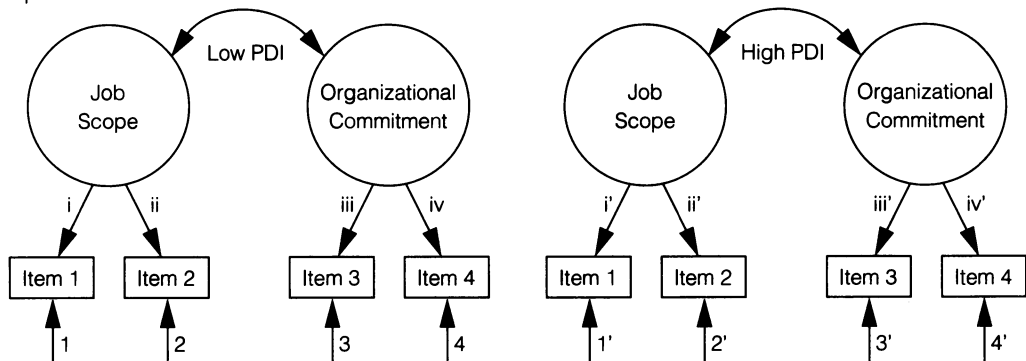
Unequal Factor Loadings:  $i \neq i'$   $ii \neq ii'$   $iii \neq iii'$   $iv \neq iv'$   
 Unequal Error Variances:  $1 \neq 1'$   $2 \neq 2'$   $3 \neq 3'$   $4 \neq 4'$

Comparison Model II



Equal Factor Loadings:  $i = i'$   $ii = ii'$   $iii = iii'$   $iv = iv'$   
 Unequal Error Variances:  $1 \neq 1'$   $2 \neq 2'$   $3 \neq 3'$   $4 \neq 4'$

Comparison Model III



Equal Factor Loadings:  $i = i'$   $ii = ii'$   $iii = iii'$   $iv = iv'$   
 Equal Error Variances:  $1 = 1'$   $2 = 2'$   $3 = 3'$   $4 = 4'$

**Figure 8-19 Nested Model Sequence to Test Moderation of Measurement Model.**

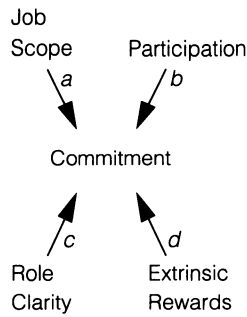
constant and that the meaning of the scale is culturally invariant. Comparison Model III, in which equal factor loadings and measurement error variances across cultural subgroups are specified, approximated Model II's fit, signaling culturally consistent reliabilities. If scale attributes had changed across cultures, subsequent SEM tests of the structural model could adjust for psychometric variation by letting measurement parameters vary between cultures.

Palich, Hom and Griffeth (*ibid.*) then evaluated the cross-cultural generality of the structural model. They hypothesized that PDI moderates the effects of job scope and participation on organizational commitment, but not the impact of role clarity and extrinsic inducements. Testing these hypotheses, they specified another set of comparison models, shown in Figure 8-20 without measurement submodels. They first tested Comparison Model A, which permits all structural parameters to vary across PDI subgroups. Because of its good fit, they next compared Comparison Model A with Comparison Model B, in which some causal parameters are equal across PDI subgroups whereas others vary. Comparison Model B constrained *culturally independent* parameters (*c*: role clarity; *d*: extrinsic rewards) so that they were equal across cultural subgroups but allowed culturally moderated parameters (*a*: job scope; *b*: participation) to diverge. Model B fit the data as accurately as Model A did, sustaining the implicit hypothesis that PDI does *not* affect parameters (*c* and *d*) constrained in Model B. Last, they contrasted Model B with Model C, in which *all* causal parameters are equated across PDI subgroups. This comparison tested hypotheses of cultural moderators, prescribing that PDI moderates parameters (*a* and *b*) fixed in Model C but freed in Model B. Because Models B and C equally explained data, the power-distance dimension did *not* moderate the causal determinants of organizational commitment. In sum, this approach illustrates a powerful means for testing the generality of turnover models.

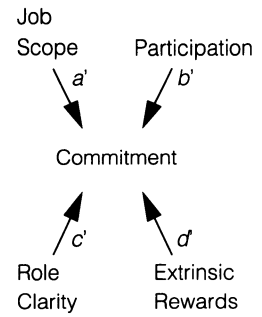
### META-ANALYTICAL TEST

By joining meta-analysis to SEM analysis, we derive a more powerful methodology for testing theories of turnover (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Premack and Hunter 1988). Meta-analysis greatly multiplies the statistical power for tests of models through the accumulation of correlations from many studies. This procedure, for example, produces a more stable estimate of variable relationship by averaging correlations taken from several samples, after weighing the correlations by sample size (Hunter and Schmidt 1990b). Besides correcting sampling error, meta-analysis provides additional corrections for statistical artifacts, such as unreliability and range restriction. These refinements bolster the magnitude of correlation indices that are attenuated by random errors of measurement and restricted score variance. Consequently, such data aggregation and statistical corrections yield more valid measures of "true" correlations between variables.

Comparison Model A



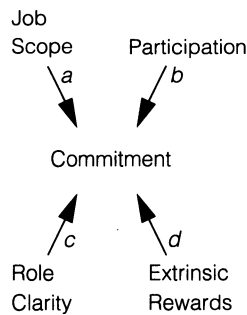
Low PDI



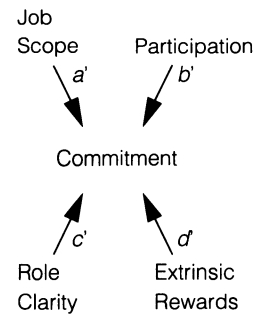
High PDI

Unequal Causal Parameters:  $a \neq a'$   $b \neq b'$   $c \neq c'$   $d \neq d'$

Comparison Model B



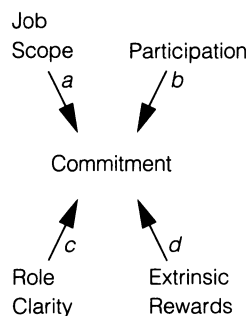
Low PDI



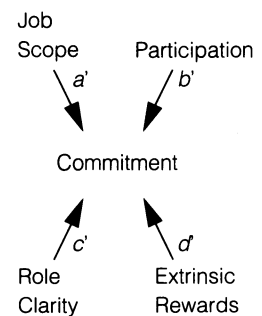
High PDI

Equality of Some Parameters:  $a \neq a'$   $b \neq b'$   $c = c'$   $d = d'$

Comparison Model C



Low PDI



High PDI

Equal Causal Parameters:  $a = a'$   $b = b'$   $c = c'$   $d = d'$

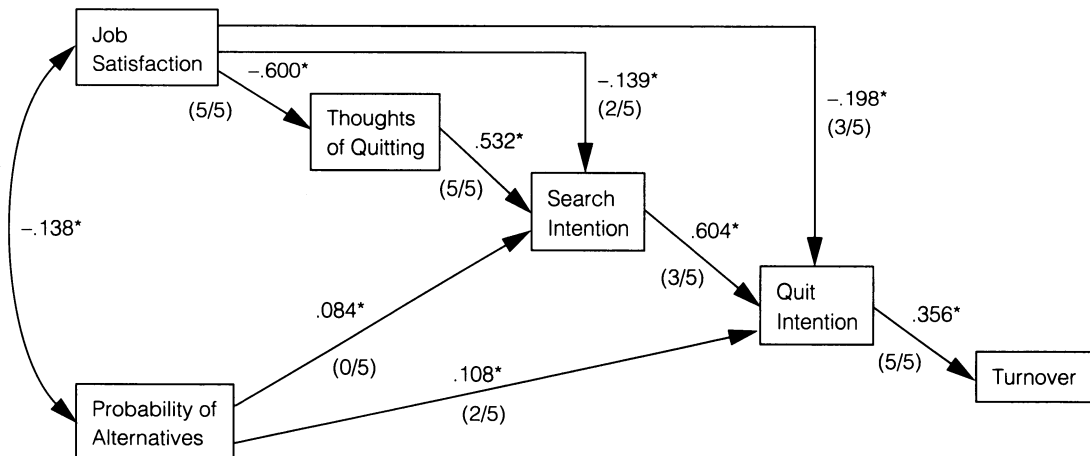
**Figure 8-20** Nested Model Sequence to Test Moderation of Structural Model.

Afterward, SEM can analyze correlations that are purified of methodological artifacts and may uncover higher model validity (see Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Premack and Hunter 1988).

### Meta-analytical example

To demonstrate this joint methodology, we describe Hom, Caranikis-Walker, Prussia, and Griffeth's investigation (1992) of Mobley, Horner, and Hollingsworth's 1978 model (see Figure 8-21). Previous investigations disputed the causal network and generalizability of this model. Dalessio, Silverman, and Shuck (1986) reanalyzed data from five samples and counted how often the model's parameters were significant and had correct signs in five regression tests. They found conflicting support for the model's pathways. Three of five tests, for instance, showed that satisfaction impacts quit decisions. (Figure 8-21 reports the number of times each causal parameter was upheld by Dalessio, Silverman, and Shuck's five regression tests in parentheses.) Parameter estimates, too, fluctuated widely across regression tests. For example, they reported that the estimated effects of quit intentions on turnover ranged from .18 to .61. Though intuitively appealing, Dalessio et al.'s method of counting significant results generated misleading conclusions: Causal parameters may appear significant in large-sample tests but not in small-sample tests. Given modest sample sizes (and modest statistical power), most tests may fail to detect significance even for a valid parameter (Hunter and Schmidt 1990b).

Instead of this counting method, Hom, Caranikis-Walker, Prussia, and Griffeth (1992) applied meta-analysis to cumulate studies before model estimation, taking into account the uneven sample sizes across the studies



**Figure 8-21** Meta-analysis of Mobley, Horner, and Hollingsworth's Model of Turnover (1978)



(Premack and Hunter 1988). Correcting for sampling and measurement errors, they aggregated correlations from seventeen samples ( $N = 5,013$ ) testing Mobley, Horner, and Hollingsworth's (1978) model with Hunter and Schmidt's procedures (1990b; Hunter, Schmidt, and Jackson 1982). They then evaluated a model based on corrected correlations. As a result, they uncovered acceptable statistics of fit (NFI = .916; CFI = .916) and found that all parameter estimates were statistically significant and carried theoretically correct signs (shown in Figure 8-21). These findings are impressive because no other research study (Dalessio, Silverman, and Shuck 1986; Hom, Griffeth, and Sellaro 1984; Lee 1988; Steel, Lounsbury, and Horst 1981), including Mobley, Horner, and Hollingsworth's original test (1978) has ever verified each and every model pathway.

Meta-analysis may also refine examinations of model generality by controlling differential statistical artifacts across subpopulations (Hunter and Schmidt 1990b). That is, meta-analysis can adjust correlations from different samples for different reliabilities of scale and restriction of range before testing to ascertain whether a turnover model generalizes across subgroups (Hom, Caranikis-Walker, Prussia, and Griffeth 1992). In this way, variability in statistical artifacts between groups does not overstate inconstancy of the model. After correcting correlations within each subpopulation, SEM can more precisely evaluate the invariance of the model's parameters across subpopulations (*ibid.*).

### Limitations

Though powerful, a meta-analytical SEM test requires ample findings from multiple studies to minimize second-order sampling error (Hunter and Schmidt 1990b). Yet complete tests of conceptualizations—that assess all the components of a model—about withdrawal remain rare. Nonetheless, empirical data on formulations made by Price and Mueller (1981, 1986), Mobley (1977), and Farrell and Rusbult (1981) are growing. These models may eventually prove amenable to meta-analytical SEM testing. Alternatively, meta-analysis might aggregate correlations between model variables from studies that do not directly test that model (Premack and Hunter 1988). This practice yields correlations derived from incomplete data, a violation of the presumption held by current SEM statistical theories that data are complete (Bentler and Chou 1987). To date, the repercussions of analyzing incomplete-data correlation matrices are unknown.

More importantly, SEM procedures assume covariance matrices, but meta-analysis typically, and perhaps unavoidably, cumulates correlations. But correlations as SEM input may generate the wrong omnibus test statistics or standard errors (except those for scale-invariant models) (Cudeck 1989). All the same, Hom, Caranikis-Walker, Prussia, and Griffeth (1992) found that least squares parameter estimates (which do not require input covariances) virtually matched maximum likelihood SEM estimates. Thus, input correlations may not necessarily distort tests of models. To cross-check SEM results,

turnover researchers might thus apply least squares regressions to analyze meta-analytical correlations (Premack and Hunter 1988). Though not yet widespread, newer SEM techniques can correctly analyze correlation matrices (Cudeck 1989).

## PREDICTION OF TIMING OF TURNOVER

The prevailing cross-sectional methodology—surveys of employees on one occasion to forecast who quits after some elapsed time—has increasingly drawn criticism (Morita, Lee, and Mowday 1989, 1993; Peters and Sheridan 1988; Singer and Willett 1991). Typically, the dates for beginning and ending a cross-sectional study are arbitrary. Yet the particular calendar period chosen can dramatically alter a study's findings on correlations between predictors and quitting (Murnane, Singer, and Willett 1988). Short measurement periods weaken correlations because fewer employees leave in any one brief period, and the smaller numbers of quitters shrink variance in turnover. By contrast, more employees will be quitting over a longer time, the higher numbers bolstering the correlations—if there has been no erosion of predictive power over that time (Harrison and Hulin 1989). Thus, the predictive efficacy of determinants of turnover may hinge more on arbitrarily chosen measurement intervals than on their true predictive validity. Carsten and Spector (1987) estimated an  $-.51$  correlation between the time period of data collection and relationships between satisfaction and turnover; job satisfaction best predicts quits when the time span is short.

This cross-sectional approach also distorts results by arbitrarily dictating which participant in a study is a stayer and which a leaver (Murnane, Singer, and Willett 1988; Peters and Sheridan 1988). Stayers are merely those employees who happened not to have quit by the time the study ended; leavers are those who left during the study period. If, a study had terminated earlier, some leavers—who had not by that time quit—would have been classified as stayers; a study ending later would result in some stayers having become leavers. Such shifting employment status (and hence, changing base rate and variance in criterion) spuriously alters the estimated predictive power of turnover causes (Morita, Lee, and Mowday 1993, Peters and Sheridan 1988).

Most of all, this cross-sectional methodology neglects the timing of resignations (Morita, Lee, and Mowday 1989), treating an employee who quits after ten years of tenure on the same level as one who quits after a few days (Murnane, Singer, and Willett 1988). It is quite likely that this methodological tradition inhibited the consideration of dynamic relationships in prevailing theories and overlooked the temporal dimension of withdrawal (Mobley 1982; Morita, Lee and Mowday 1993; Sheridan and Abelson 1983). Current theories strive to explain whether turnover occurs (Williams 1990), not when turnover occurs, with the result (Singer and Willett 1991) that the 100 percent job turnover rates found among certain workers, such as certified public accountants (Peters and Sheridan 1988) and registered nurses

(Huey and Hartley 1988), are given short shrift. For such jobs, predictions of *when* employees will quit rather than *if* they will quit would be more useful to organizations (Murnane, Singer, and Willett 1989).

To offset such methodological inadequacies, several scholars introduced “survival analysis” to examine turnover timing (Morita, Lee, and Mowday 1989, 1993; Murnane, Singer, and Willett 1989; Peters and Sheridan 1988; Sheridan 1992). This technique comprises a family of actuarial methods used in the biomedical life sciences to track the life expectancies of patients with life-threatening diseases. By treating employment duration as analogous to a lifetime, survival analysis can trace retention rates during employment, estimate quit rates at various stages of tenure, and identify peak termination periods (Singer and Willett 1991).

The following passage describes a nonparametric survival analysis based on life-table analysis (Peters and Sheridan 1988). For this analysis, we chose a particular calendar date and sampled all the new hires from that time until the study ended, recording their company tenure. Stayers—those continuously employed throughout the study period—yield “censored” observations because they will leave (if at all) *after* the measurement window is closed (Singer and Willett 1991). For them, retention time is the length of their employment until the study’s end. Involuntary quits are likewise “censored” when one is studying voluntary quits because how long the subjects would have remained voluntarily had they not been fired is unknown (Morita, Lee and Mowday 1993). In survival analysis, unlike in traditional procedures, data from involuntary quitters is used partially rather than being discarded (Sheridan 1992): the data are included in the tenure intervals that they completed (their retention time is at least their dismissal date) but are discarded from tenure periods they missed.

The procedure next divides the duration of the study into time (tenure) intervals, such as weeks or months, and estimates the following probability statistics for each interval.

1. The total number of employees exposed to “termination risk” during each tenure interval  $i$  ( $r_i$ ):  
 $r_i = \text{Total number of employees} - \text{one-half of employees whose data entering tenure interval are censored at this interval}$
2. The probability that employees quit in tenure interval  $i$  ( $q_i$ ):  
 $q_i = (\text{Number of terminations } [t_i] \text{ occurring in tenure interval } i) \div (\text{Number of employees exposed to termination risk in that interval})$
3. The probability that employees remain employed (“survive”) during tenure interval  $i$  ( $p_i$ ):  
 $p_i = 1 - q_i$
4. The cumulative survival rate ( $S_i$ ) = the probability of staying to the end of tenure interval  $i$ :  
 $S_i = p_1 \times p_2 \times p_3 \times p_4 \dots \times p_i$

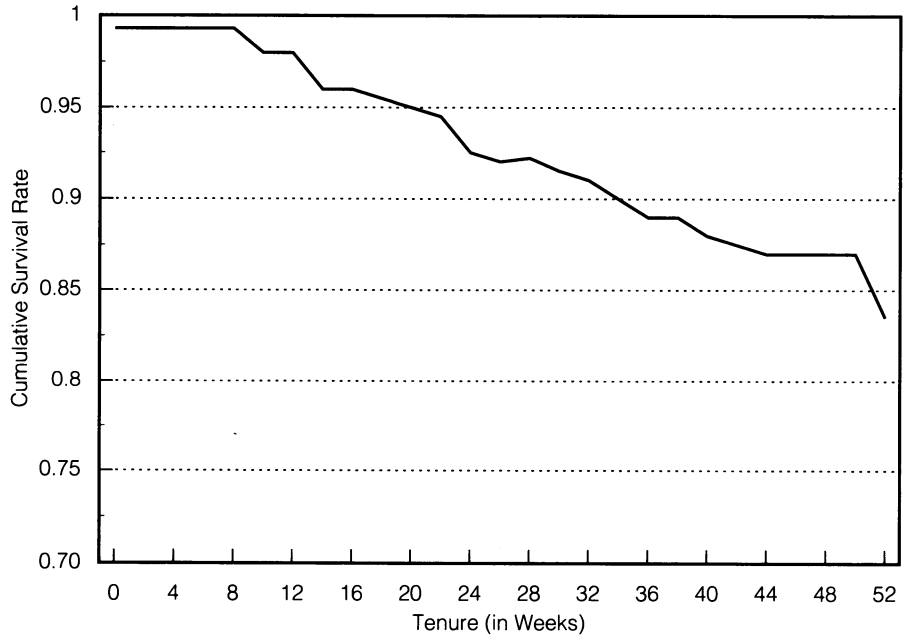
5. The hazard rate ( $\lambda$ ) = the probability of quitting (per unit of time) during tenure interval  $i$ :
- $$\lambda_i = (\text{Probability of quitting [per time unit] in tenure interval } i) \div (\text{Probability of staying to the midpoint of tenure interval } i)$$
- $$= (2 \times q_i) / h_i \times (1 + p_i), \text{ where } h_i = \text{length of tenure interval in time units.}$$

The hazard rate is thus a conditional probability that employees will quit during a given time interval among those who stayed employed up to that time (that is, members of the “risk” set) (Singer and Willett 1991).

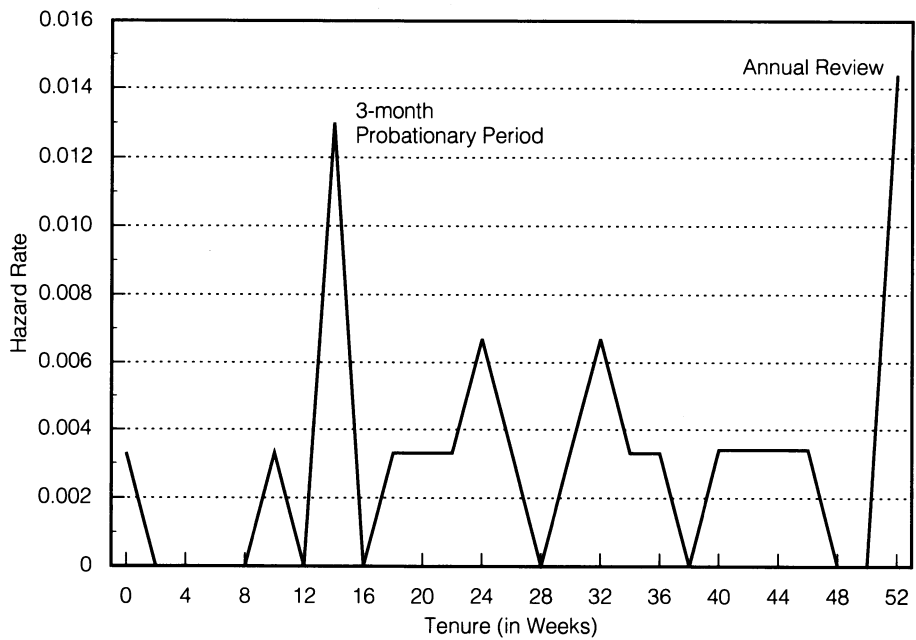
Importantly, survival analysis provides informative graphs. A graph of the cumulative probability of staying (i.e., that is, of the survival function) over time shows the proportion of new hires remaining after reaching a particular tenure. This graph also identifies retention half-life, or the tenure period at which 50 percent of employees stay (ibid.). In Figure 8-22, the retention experiences of one hundred fifty-eight new nurses in Cleveland (cf. Hom et al., 1993), of whom 84 percent remained after the first year, are shown. More revealing, a graph of the hazard rate shows how propensities to quit change each week and pinpoints when quitting most occurs (ibid.). That the nurses’ quit rates peak during the fourteenth and fifty-second weeks of their employment is shown in Figure 8-23. These peaks coincide with the three-month probationary period and the annual appraisal review, which may encourage poor performers to leave (Morita, Lee, and Mowday 1993).

Survival analysis can estimate the temporal effects of a turnover cause on survival and hazard profiles (see Murnane, Singer, and Willett 1989). We can compare different subgroups that have different values for a prospective determinant and ascertain if their survival (or hazard) profiles differ. If they do, this subgrouping variable is a “predictor” of the survival profile. To illustrate, the survival rates of two cohorts of new staff accountants—one of which received a realistic job preview (RJP) when they began work, the other of which (the control group) did not (Hom et al. 1993)—are shown in Figure 8-24. A nonparametric chi-square test found that the tenure of the two groups differed significantly (Lee and Desu 1972): Survival analysis disclosed that RJP prolonged employment, a disclosure complementing traditional evidence showing that RJP reduce turnover rates (Premack and Wanous 1985).

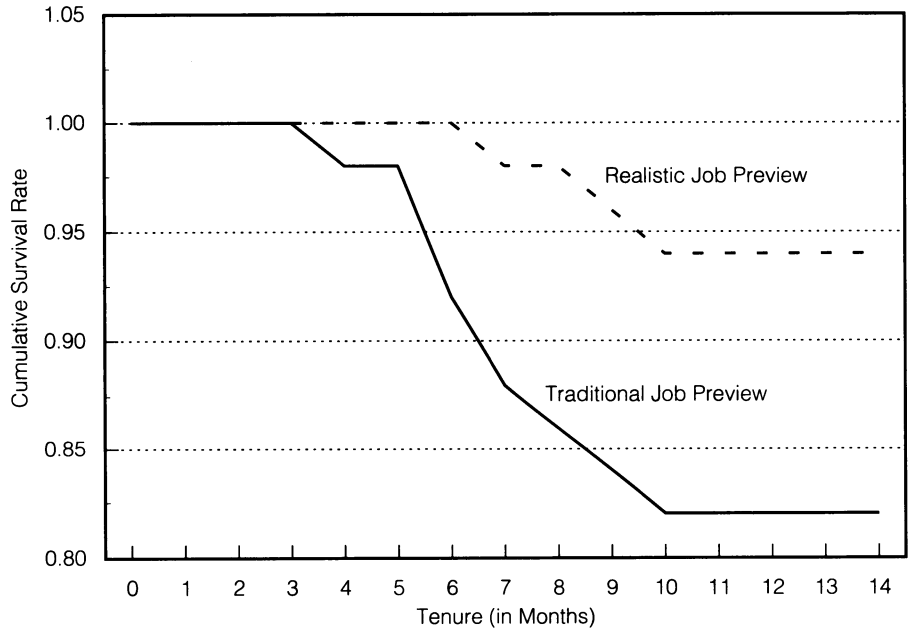
Graphic comparison between subgroups that have different predictor values may disclose that a predictor’s relationship to quits changes over time (Singer and Willett 1991). We might, for example, investigate the predictive efficacy of college internship among new accounting graduates. We would form two subgroups—one of accountants who had had internships, another of accountants without the experience—and contrast their survival rates. A graph of the data derived from Hom et al.’s work (1993) is shown in Figure 8-25. We see that the survival curves of the groups overlapped until the third month, after which survival rates for those without internships declined. The



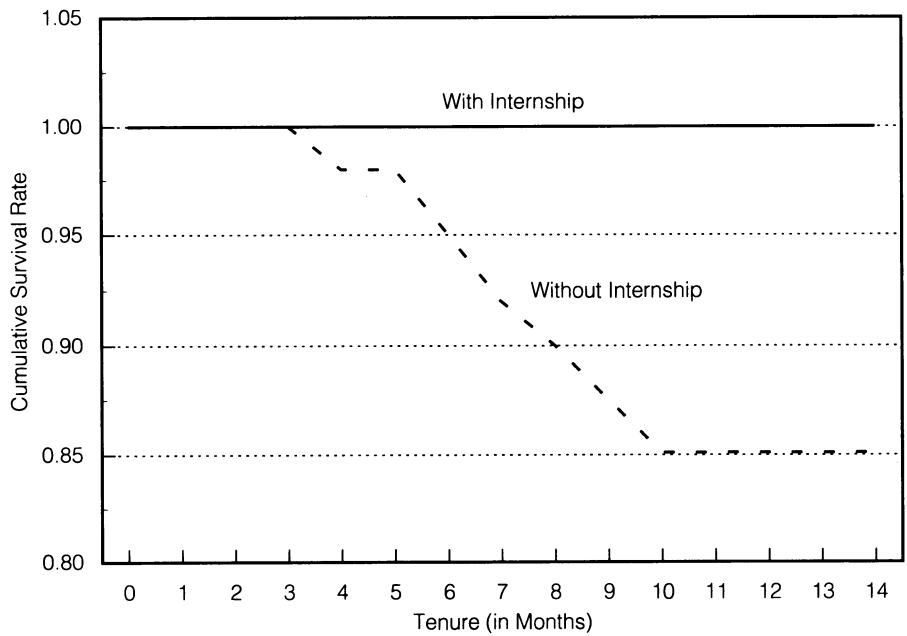
**Figure 8-22 Job Tenure Survival Rates for Nurses.**



**Figure 8-23 Hazard Rates for Nurses.**



**Figure 8-24 Survival Rates for New Staff Accountants as Functions of RJPs and Job Tenure.**



**Figure 8-25 Survival Rates for New Staff Accountants as Functions of Prior Internships and Job Tenure.**

survival distributions differed significantly. A traditional static correlation between internship and turnover during the first year overlooks the fluctuating predictive validity of internships, whose impact became evident after the third month of tenure. Survival analysis reveals dynamic changes in predictive strength more efficiently than does the correlation of predictor scores with quits at varying tenure periods (see Porter, Steers, Mowday and Boulian 1974).

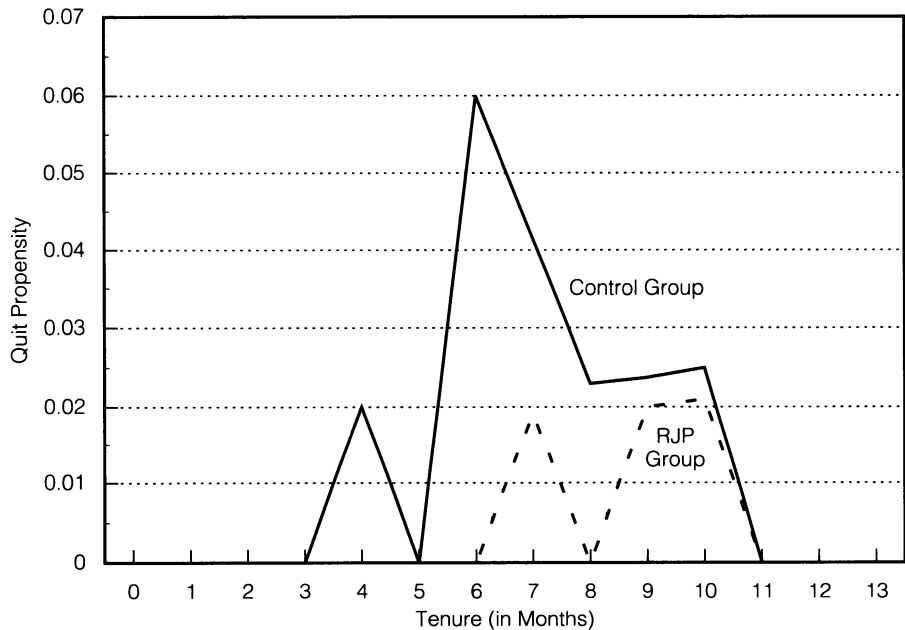
### Proportional Hazard Model

While informative, profile comparisons are ill-suited for estimating the temporal effects of continuous predictors and of several predictors simultaneously (Singer and Willett 1991). Statistical models, known as proportional hazard models can better model the relationship between a predictor, such as RJP status, and the whole hazard profile (which is more informative than the survival function that confounds incidence with duration) (Morita, Lee, and Mowday 1993; Singer and Willett 1991). Consider Figure 8-26, in which it is shown that the RJP predictor (assigning control subjects zeros and RJP subjects ones) roughly displaces two hazard profiles vertically relative to each other (using data from Hom et al.'s [1993] study). This profile elevation indicates that the RJP variable affects quit rates; that is, the hazard profile for control subjects who did not get RJP's (RJP score = 0) consistently exceeds the hazard profile for RJP recipients (RJP score = 1). The higher the displacement, the stronger a predictor's (RJP) impact. To represent algebraically the dependence of profile elevation on a predictor, a proportional hazard model uses regression-like formulas, such as:

$$\log h(t) = \beta_0 t + \beta_1 (RJP),$$

where  $h(t)$  is the entire population hazard profile. (Hazard models analyze logarithmic transformation of the hazard because probability scores assume only nonnegative values [Singer and Willett 1991].) This equation resembles a regression equation except that the dependent variable is an entire hazard function (Morita, Lee and Mowday 1993; Singer and Willett 1991).  $\beta_0 t$  is the baseline log-hazard profile and represents the value of the dependent variable (entire hazard function) when the predictor score is zero. That is,  $\beta_0 t$  describes the temporal pattern of quits among control subjects.  $\beta_1$  measures vertical displacement of the hazard profile due to the RJP predictor.

Essentially, the proportional hazard model assumes that a predictor shifts the hazard profile up (RJP = 0) or down (RJP = 1) depending on predictor scores and that each subject's hazard function is some constant multiple (proportional constant) of the baseline hazard function (Morita, Lee and Mowday 1993). This statistical model can be used to examine multiple predictors of varying measurement properties (continuous as well as categorical scales), estimating each predictor's unique effect while statistically



**Figure 8-26 Hazard Profiles of RJP and Control Accountants: Quit Propensities at Various Stages of Tenure.**

controlling other predictors (*ibid.*). Hazard models can also be used to examine predictors whose values change over time and also forecast quit rates on a given date (Darden, Hampton, and Boatwright 1987).

Predictors' estimated  $\beta$ s are interpreted as regression weights (Singer and Willett 1991). Each  $\beta$  represents the difference in elevation of the log-hazard profile for a one-unit difference in the predictor; large  $\beta$ s indicate strong predictors that produce larger profile displacements. Alternatively, the hazard equation can be transformed back into a more familiar probability metric by antilogging:

$$h(t) = e^{\beta_0 t} \times e^{\beta_1 \text{RJP}},$$

where the hazard function,  $h(t)$ , is  $e^{\beta_0 t}$  for the control group (whose RJP score = 0) and  $e^{\beta_0 t} \times e^{\beta_1}$  for the RJP group (RJP score = 1). Thus, the RJP hazard profile is the control profile multiplied by  $e^{\beta_1}$ . Basically, the exponential value of the predictor coefficient is a multiplier of the baseline hazard function, with positive signs indicating increased hazards and negative signs indicating decreased hazards (Kandel and Yamaguchi 1987; Morita, Lee, and Mowday 1993; Singer and Willett 1991). If hypothetically,  $\beta = -.50$ , then  $e^{-.50} = .61$ . Thus, RJP subjects have .61 times the risk (of quitting) than do control subjects. (Alternatively, the hazard function for the control group is the baseline function multiplied by  $e^0$  or 1.) Stated differently, the realistic job



preview reduces the likelihood of quitting by a factor of .61. We can also interpret a predictor's significance with the following formula for percentage change in hazard rates for unit change in a given predictor:

$$\%h(t) = 100 \times (e^{\beta} - 1).$$

In our running example, the RJP (a unit change in the predictor) decreases the termination hazard by 39 percent (Allison 1984). One can test the overall model with a global chi-square test (that all predictor coefficients are zero) and test the significance of individual coefficients (Morita, Lee, and Mowday 1993).

Although promising, proportional hazard models assume that all log-hazard profiles for different predictor values have the same shape and are mutually parallel (Singer and Willett 1991). Nonetheless, Singer and Willett found plentiful examples of violations of this assumption. Thus, they recommended that investigators always test this assumption by subdividing samples by predictor values and comparing hazard profiles, or else, they might estimate predictor X time interactions in hazard models. Because proportional hazard models however assume that predictor effects are constant over time (hence, parallel hazard profiles), this assumption can be tested by estimating predictor X time interaction terms for these models. Fully parameterized hazard models however do not assume constant hazards. These models however are less accessible and require fitting a functional form for the hazard function (see O'Reilly, Caldwell, and Barnett 1989).

In conclusion, survival analysis offers a powerful technique for disclosing the temporal dimension of the withdrawal process. This method is superior to cross-sectional methodology at uncovering dynamic relations between turnover and its antecedents. For example, Morita, Lee, and Mowday (1989) demonstrated that overall quit rates for two subgroups differing on a predictor variable can be identical even though their quit rates vary at different times. Traditional analytical procedures may mask the impact of a causal antecedent on termination rates at varying tenure stages. Moreover, the inclusion of a dichotomous dependent variable (turnover) into regression analyses violates the statistical assumptions of continuous dependent variable and normally distributed errors, thereby producing biased estimates (Huselid and Day 1991). Morita, Lee and Mowday (1993) demonstrated how such violations render invalid conclusions by regression analysis compared with survival analysis. Survival analysis also treats missing or censored data more efficiently (Morita, Lee and Mowday 1989).

Despite these advantages, current applications of survival analysis in turnover remain limited in scope (Darden, Hamplin, and Boatwright 1987; Kandel and Yamaguchi 1987; Murnane, Singer, and Willett 1989; O'Reilly, Caldwell, and Barnett 1989; Sheridan 1992). To date, these studies have investigated the effects of a few predictors on survival rates, failing to test complete turnover models. Yet survival analytical tests of turnover formulations may extend their capacity to explain not only if, but also when,

turnover occurs. Quite likely, many explanatory constructs in prevailing models, such as organizational commitment can forecast exit times as well as exit occurrences (Morita, Lee, and Mowday 1989; 1993). This methodology, given its ability to handle multiple quit incidences, promotes the development of theories of intrafirm mobility (see Fichman 1988; Harrison and Hulin 1989; Murnane, Singer, and Willett 1988). By examining an individual's pattern of quitting, we might develop dispositional explanations for unstable work histories (see Kandel and Yamaguchi 1987). The approach may identify valid predictors of employment duration to help firms select more stable employees, especially in settings characterized by excessive turnover, such as public accounting (Sheridan 1992) or *maquiladora* factories (Hom, Gomez-Mejia, and Grabke 1993).

## ROBUST METHODS OF CONTROLLING TURNOVER

Prescriptions for reducing employee turnover abound (Bellus 1984; Gardner 1986; Half 1982; Moore and Simendinger 1989; Roseman 1981; Watts and White 1988). However popular, such advice often rests on dubious or nonexistent empirical underpinnings. All too often, practical remedies are derived from case studies or anecdotal evidence. Rigorous research on practical interventions—especially those using quasi-experimental or experimental designs—is remarkably scarce (McEvoy and Cascio 1985). In the following chapter, we review “robust” interventions for curtailing exits supported by quasi-experimental or experimental research. Supplementing this discussion, we consider interventions that influence reliable precursors of turnover (namely, job satisfaction and withdrawal cognitions) even if experimental studies did not assess their impact on quits. In the next chapter, we consider interventions suggested by the wider body of organizational research on predictors of turnover. While not necessarily testing interventions, nonexperimental studies still suggest practical remedies (termed “promising” methods of turnover reduction).

### REALISTIC JOB PREVIEWS

Existing academic inquiry has primarily evaluated realistic job previews (RJPs) for reducing turnover (Rynes 1990; Wanous and Collela 1989). Presumably, extensive and realistic communications about a new job to prospective or new employees during recruitment or orientation may improve their tenure (Wanous 1980). Sample statements from RJP booklets for nursing and accountancy taken from Hom et al. (1993) are reproduced in Figure 9-1. Unlike traditional job portrayals, RJPs show both the positive and negative features of the new job.

By now, extensive research has corroborated the efficacy of RJPs for reducing early attrition in many occupations (McEvoy and Cascio 1985; Premack and Wanous 1985; Reilly, Brown, Blood, and Malatesta 1981; Wanous and Collela 1989; Wanous 1992). Even so, the impact is modest:  $r = .12$  between RJP and retention (Wanous and Collela 1989). Moreover, the effectiveness of RJPs varies with job survival rates, being most effective under poor conditions for survival (Premack and Wanous 1985). Despite these promising findings, the underlying reasons for the success of RJPs and their optimal design remain lively topics of debate. In the following section, we review these persistent controversies.

## **Nursing**

The provision of nursing care is a constant challenge in this teaching hospital with its variety of patients and its introduction of new medical procedures, technology, drugs, and equipment. In addition, nurses can make many autonomous and independent decisions regarding patient care and are part of an interdisciplinary team where everyone's input (from aides to nursing directors) is considered. Since nurses apply a large variety of skills within a given day and care for patients having varied and unusual problems, there are numerous opportunities to learn much here and to use the skills and knowledge acquired in nursing school.

Most nurses love their work here, but feel that there is too much of it—sometimes feeling overwhelmed by responsibilities. Nursing can be hard, physically and mentally demanding work, with nurses often performing the work of others to ensure that patients do not suffer. Thus, some nurses find it difficult to “shrug off” a stressful day and worry after work about things they were unable to do during work hours. Further, nurses receive little feedback about their job performance or little praise for good work from supervisors: However, informal performance feedback often comes from the nurse's peers and patients, and the nurse values their feedback most.

## **Accountancy**

Students may anticipate having to work long hours and to carry heavy workloads, but they still will have difficulty adjusting. “Knowing it is one thing, living through it is another.”

Often lost in the details of the audit, new staff often do not see the big picture or fully understand the audit's objectives.

Even though they were good students in college, new staff may be inefficient or technically incompetent at work.

New staff are rarely their own boss, in charge of a job from beginning to end.

Firms doubt whether first-year staff can creatively suggest more efficient or correct ways to audit an area for last year's workpapers.

Public accounting work is highly diverse since clients are so different. This diversity can be both frustrating and challenging.

New staff often do “grunt work” (xeroxing, carrying audit bags, being gofers).

Firms often set time budgets too low for jobs. Unforeseen circumstances or client differences frequently prevent staff from doing the job within budgeted time.

Staff work is stressful since there are always pressures to meet job deadlines and to finish jobs within time budgets.

Multiple reviews of workpapers usually catch staff errors but also expose staff to criticism from multiple reviewers.

Clients' employees may feel the auditor is “out to get them.” They feel their job is threatened if the auditor detects errors in the accounting system.

Clients may procrastinate in supplying the needed information. This can ruin the auditor's time budget (makes the auditor look bad) and waste the auditor's own time (spends unproductive time waiting).

Generally speaking, partners do not take new staff under their wings.

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**Figure 9-1 Sample Statements from Realistic Job Previews. (P. Hom, R. Griffeth, L. Palich, and J. Bracker (1993). “Realistic job previews: Two-occupation test of mediating processes.” College of Business, Arizona State University, Tempe, Arizona.)**

## Theoretical Explanations

***Met Expectations*** The prevailing explanation for the efficacy of RJPs is derived from the theory of met expectations (Porter and Steers 1973). Presumably, new employees hold naive and inflated expectations about their new jobs (Wanous 1980) and later are shocked to learn that their new work roles do not conform to their initial expectations (Dean, Ferris, and Konstans 1988). Unmet expectations, in turn, induce dissatisfaction and resignations (Premack and Wanous 1987). RJPs can forestall the reality shock by forewarning newcomers about the unpleasant realities of the work. With initial expectations deflated, the job can more easily meet newcomers' expectations, and disillusionment and organizational withdrawal be prevented.

Supporting this process, a meta-analysis by Premack and Wanous (1985) revealed that RJPs deflate initial expectations, and a meta-analysis by Wanous et al. (1992) affirmed that met expectations (whether manipulated or measured) enhance satisfaction and job survival. Notwithstanding such impressive evidence, empirical support primarily comes from testing the impact of RJPs on initial expectations (Hom et al. 1993; Rynes 1990). Existing research may overstate the validity of this mediating process because preemployment and met expectations represent different constructs (Louis 1980). The few studies of met expectations report an inconsistent impact by RJPs on the construct (Colarelli 1984; Horner, Mobley, and Meglino 1979; Ilgen and Dugoni 1977; Reilly et al. 1981).

***Commitment to Choice of Organization*** According to another theory, RJPs strengthen job incumbency by reinforcing commitment to the original choice of the organization (Ilgen and Seely 1974; Meglino et al. 1988). New employees who are fully informed while choosing the job feel that they have more freedom in making their choices (Meglino and DeNisi 1988; Wanous, 1977, 1980) and thus they feel more personally responsible and committed to the decision (O'Reilly and Caldwell 1981; Salancik 1977). Job candidates who accept the job despite warnings in RJPs about its drawbacks feel more bound to their choice, if only to ameliorate dissonance (Ilgen and Seely 1974): Employees who did receive RJPs feel cognitive dissonance about their initial decision when, later, they confront disagreeable work conditions. To resolve that dissonance, they rationalize their decision by overemphasizing the positive qualities of the job they have chosen, while deemphasizing its negative qualities (Vroom and Deci 1971).

That RJPs develop commitment is shown in the meta-analysis by Premack and Wanous (1985). Here again, the studies reviewed primarily measured organizational commitment rather than commitment to the original job decision (Dean and Wanous 1984; Horner, Mobley, and Meglino 1979; Meglino et al. 1988; Reilly et al. 1981). Though related, these forms of attachment constitute psychological bonds to different acts that have dissimilar origins (Kline and Peters 1991; Mowday, Porter, and Steers 1982; O'Reilly and Caldwell 1981; Wanous 1992). Only Colarelli (1984) opera-

tionalized commitment to job choice—and found no stronger commitment among RJP recipients.

***Self-Selection*** RJPs may improve the fit between person and job through applicant self-selection (Vandenberg and Scarpello 1990; Rynes 1990; Wanous 1980). According to this rationale, RJPs describe the rewards available in a job, thus allowing prospective employees to make better decisions about whether or not the job satisfies their personal needs. If this theory holds, those newcomers who received RJPs will fit the job better than will naive newcomers. If the rewards of the job do satisfy their preferences, they will develop higher levels of job satisfaction and loyalty (Locke 1976). Candidates who lack realistic information make unwise choices and take jobs for which they are less well suited.

The meta-analysis by Premack and Wanous (1985) disclosed that applicants given previews are more likely to refuse job offers. Job refusal rates indirectly test the hypothesis of self-selection, which implies that samples of candidates who received RJPs are made up of different kinds of people from samples of control candidates who did not (Zaharia and Baumeister 1981). The former should experience a higher congruency between their personal needs and the organizational climate than the latter, but will not necessarily turn down job offers (Wanous 1973). Varying rates of job refusal may mirror a different process, by which it is the RJPs that drive away qualified candidates but leave the less employable (and hence, more loyal) to take the job (Rynes 1990). Only Wanous (1973) has assessed job preferences, and found *no* dissimilar preferences between RJP and control subjects.

***Value Orientation*** RJPs might modify desires for job outcomes if newcomers are uncertain about what constitutes a “good return” on an outcome from a job (Ilgen and Dugoni 1977). RJPs may intensify the newcomers’ desires for what is available but dampen desires for what is absent (Meglino et al. 1988)—the latter devaluation occurring to avoid disappointment (Horner, Mobley, and Meglino 1979; Meglino and DeNisi 1987). RJPs may, as a result, narrow the gap between the experienced and the desired levels of job outcomes, boosting satisfaction (Locke 1976). Though scarce, some studies showed that RJPs can shape preferences for rewards (Horner, Mobley, and Meglino 1979; Miceli 1985).

***Perceived Employer Concern and Honesty*** RJPs may also promote beliefs that the employer is trustworthy and concerned about the newcomer’s welfare, which would make the job more attractive (Dugoni and Ilgen 1981). This perception of benevolence may also foster feelings of obligations to reciprocate with continued affiliation (Meglino et al. 1988; Meglino, DeNisi, Ravlin, Tomes, and Lee 1990). Past research (Dean and Wanous 1984; Dugoni and Ilgen 1981; Horner, Mobley, and Meglino 1979; Premack and Wanous 1985) disputed this mechanism, but recent studies relate that RJPs do foster perceptions that the company is candid and supportive (Meglino et al. 1988;

Suszko and Breugh 1986) and enhance impressions of representatives of the firm (Colarelli 1984; Ilgen and Dugoni 1977).

**Coping Efficacy** RJPs may help newcomers cope with their new work roles because warnings of potential stress will allay disquiet (Ilgen and Dugoni 1977; Wanous and Collela 1989) and permits rehearsals of methods for handling it (Breugh 1983). A meta-analysis (Premack and Wanous 1985) estimated, however, that RJPs only negligibly bolster coping effectiveness, although four studies accounted for the estimate. Since that review, Suszko and Breugh (1986) found that recipients of RJPs managed stress better and felt less distress than did nonrecipients, and Meglino et al. (1988, 1990) discerned that RJP recipients worried more about stressful events.

In conclusion, empirical support for mediating processes is indirect, equivocal, or meager. Most researchers examined initial rather than met expectations; the few assessments of the latter construct did not reveal any consistent effects of RJPs. Likewise, studies have largely measured commitment to the company rather than commitment to the job decision; the sole inquiry on the latter did not discern that RJP recipients were any more committed (Colarelli 1984). Tests of self-selection primarily considered job acceptance rates rather than the psychological match between individual needs and an organization's climate (Premack and Wanous 1985). Only two tests corroborated the effect of value orientation, and the few tests of coping efficacy yielded conflicting results, the later tests being more supportive than were the early ones. Past research has rejected the notion that RJPs augment perceptions that the employer is honest and concerned, but current work finds that RJPs can enhance such perceptions of the firm or its representatives.

Past analysis has been inadequate in showing that mediators intervene between RJPs and withdrawal. With few exceptions (Dilla 1987; Dugoni and Ilgen 1981), researchers have assessed the impact of RJPs on mediators and turnover. Yet documentation for complete mediation of the type  $X \rightarrow M \rightarrow Y$  requires that *four* conditions hold: (1) that  $X \rightarrow Y$  is significant; (2) that  $X \rightarrow M$  is significant; (3) that  $M \rightarrow Y$  is significant; and (4) that  $X$  has no direct effect on  $Y$  when  $M$  is held constant (Baron and Kenny 1986; James and Brett 1984). Unfortunately, traditional approaches have tested the first two conditions but overlooked the third and fourth. Current statistical procedures have failed to capture some of the more elaborate mediation processes that have long been posited, among them the notion that RJP mediators influence quits through satisfaction and withdrawal cognitions (see Horner, Mobley, and Meglino 1979; Wanous 1980).

### **Test of a Comprehensive Model of Mediation**

To overcome these methodological shortcomings, Hom et al. (1993) revisited the five principal reasons for how RJPs given after an employee is hired will strengthen job incumbency—namely, met expectations, commitment to the choice of job, value orientation, perceptions of the company's

concern, and coping efficacy (Horner, Mobley, and Meglino 1979; Ilgen and Dugoni 1977; Ilgen and Seely 1974; Meglino and DeNisi 1987; Meglino et al. [1988, 1990] further subdivided these processes). Posthire previews, by experimentally controlling self-selection and postdecisional dissonance reduction, may better clarify how these mediators operate (Horner, Mobley, and Meglino 1979). Hom and colleagues extended structural equations modeling (SEM) to validate a theoretical framework encompassing all mediating processes (see Figure 9-2). Although emerging over a decade ago (ibid.; Wanous 1980), comprehensive formulations about preview mediation have escaped confirmatory assessment. Their conceptualization further elucidated RJP translation by interposing job satisfaction and withdrawal cognitions between RJP mediators and exits. This extended mediation reflected the view of many that RJP mediators activate a withdrawal sequence culminating in job separations (Horner, Mobley, and Meglino 1979; Vandenberg and Scarpello 1990; Wanous 1980, 1992). The model further proposed a causal flow: satisfaction → termination cognitions → quits (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Hom and Griffeth 1991; Price and Mueller 1986; Williams and Hazer 1986).

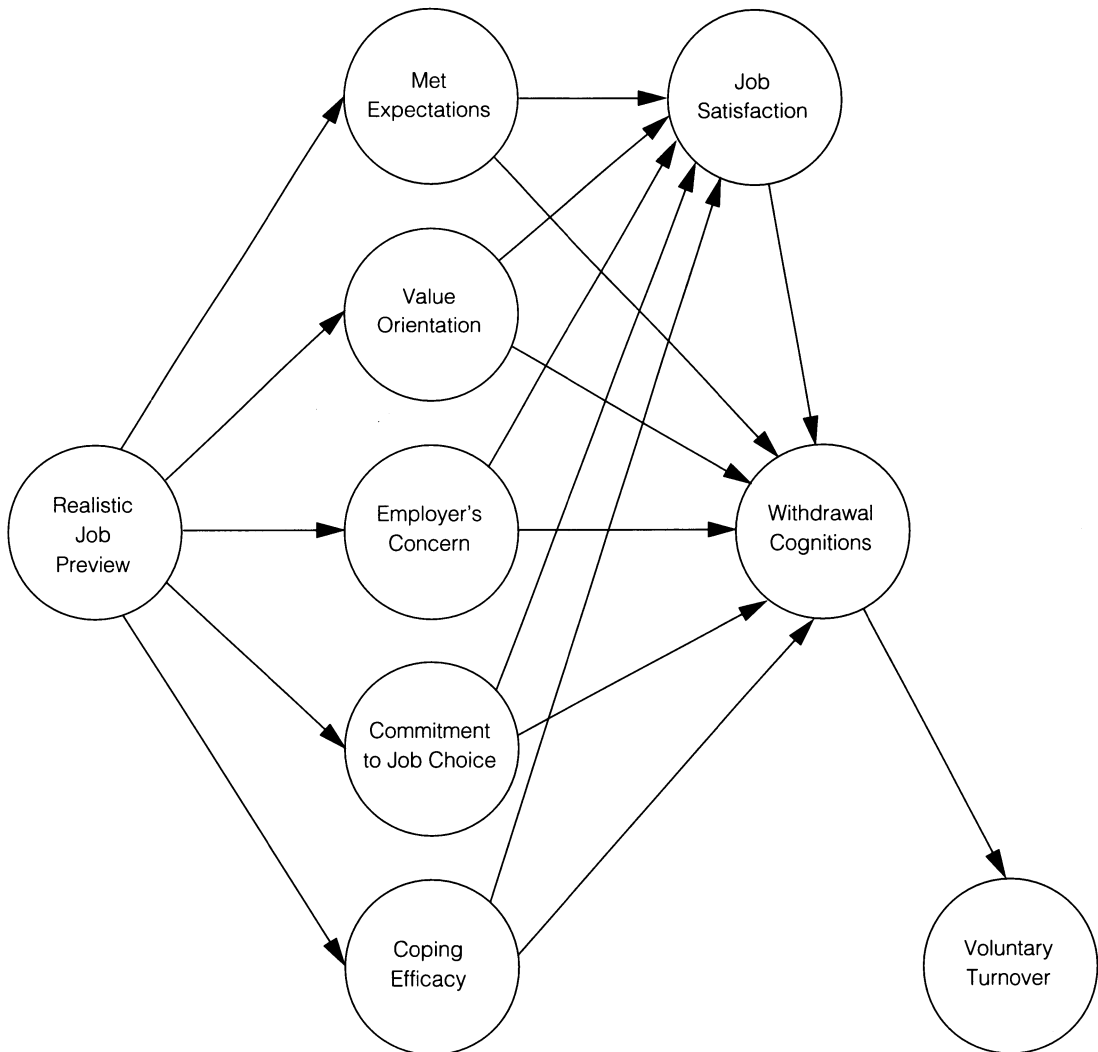
After showing that RJP impact quits (condition one), Hom et al. (1993) tested conditions two, three, and four by evaluating their model with SEM analysis. Confirmatory methodology assessed the mediators' pathways to the RJP treatment and termination process, fulfilling conditions two and three (Fiske, Kenny, and Taylor 1982). To meet condition four, they introduced direct linkages between RJP and withdrawal to this mediation model to verify the hypothesized *absence* of any direct effects of RJP (Bollen 1989). Their SEM application also addressed the question of whether or not RJP mediators indirectly affect quits by way of satisfaction and turnover cognitions (Baron and Kenny 1986). Sustaining the hypotheses about mediating processes, Hom et al. validated this structural model with a sample of registered nurses. Another sample of accountants (possibly because of delayed surveys, which overshot the occurrence of mediating processes) did not provide supporting evidence.

### Practical Design and Implementation

Unlike mediational tests, research on the design and implementation of RJP is sparse. Understanding may improve the execution of RJP (Rynes 1990), but attention to practical issues may yield more immediate payoffs. In the following section, we review other conditions that influence the effectiveness of RJP.

**RJP Timing** Job candidates can receive RJP while they are being recruited—before they decide whether or not to accept the job—or during orientation—after they have chosen the job (Wanous and Collela 1989). Presumably, job previews are most effective in reducing turnover when they are delivered *before* the choice is made (Breugh 1983), when there is still time for self-selection and postdecisional dissonance to operate (Ilgen and Seely 1974; Wanous





**Figure 9-2 Theory of Processes Mediating the Influence of Posthire Realistic Job Previews on Turnover.** (P. Hom, R. Griffeth, L. Palich, and J. Bracker (1993), "Realistic job previews: Two-occupaton Test of mediating precesses." College of Business, Arizona State University, Tempe, Arizona: 40.)

and Collela 1989). That is, job applicants can only select themselves out of a job or feel dissonance about their decision to take the job if they receive RJPs before they make the choice. Even so, many studies find that posthire RJPs can reduce quits (Dugoni and Ilgen 1981; Hom et al. 1993; Horner, Mobley, and Meglino 1979; Meglino et al. 1988). In no study has the timing of RJPs been directly compared, and the question merits further investigation.

**Communication Modes** RJPs have been presented in various modes of communication, including booklets, audiovisual media, work samples, and interviews (Wanous and Collela 1989). The booklet, being easily developed and convenient to administrate, is by far the most popular medium. These practical advantages notwithstanding, Premack and Wanous (1985) found that booklet RJPs decreased exits as effectively as did audiovisual RJPs, which also improved job performance.

In a rare test, Colarelli (1984) compared two modes of delivering realistic previews, booklet and presentations by employees contending that the latter are more effective. Face-to-face interactions make the applicants pay attention and improves their comprehension. Employees, in addressing each applicant's particular concerns, communicate more relevant information. Employees are also more candid than booklets, from which facts that the company does not want to acknowledge formally may be omitted, and are more credible sources because they occupy positions sought by applicants. Predictably, Colarelli found that RJPs given by employers reduced resignations among new bank tellers (3-month quit rate: 14.6 percent) more than did booklet previews (44.9 percent quit rate).

**Developmental Procedures** The present-day construction of RJPs (especially as booklets) increasingly follows content validation methods to insure that they accurately and completely reflect the job content. For example, the development of a booklet requires a survey of many current employees and their superiors, who will independently verify the accuracy of statements about the job that were drawn from preliminary interviews (Dean and Wanous 1984; Reilly, Tenopyr and Sperling 1979). Majority opinion (a 70 percent consensus) determines which statements are included in the booklet. This painstaking development process may benefit from additional refinement from further research comparing various ways of compiling RJPs (see the development procedures for behaviorally anchored rating scales [Bernardin, LaShells, Smith, and Alvares 1976]). Developmental procedures for other RJP media remain unexamined and warrant future evaluation.

**RJP Content** Uncertainty over which dimension of job content—specificity, favorability, occupational focus, or subjective reality—should be emphasized in RJPs persists. Addressing one dimension, Dean and Wanous (1984) compared a RJP booklet containing specific information about bank tellers with a more general RJP booklet. Surprisingly, the specific RJP did *not* reduce turnover any more than the generic preview did. Comparing another dimension, Meglino et al. (1988) exposed army trainees to one of three audiovisual RJPs differing in favorability. One of these audiovisual RJPs, like most, embodied a “reduction” preview, primarily portraying problems in the workplace. Another was an “enhancement” preview, emphasizing the positive attributes of the job. The third was a comprehensive RJP combining the other two.

The combined RJP lowered attrition the most among military trainees. The enhancement RJP reduced exits more than the reduction RJP did,

leading one to speculate that enhancement RJPs may help new entrants in demanding jobs (such as military training) by modifying their overly pessimistic expectations (Wanous and Collela 1989). Surprisingly, among recipients of the reduction RJP, retention was poorer than it was in a control group. Conceivably, this RJP exacerbated already negative expectations about basic training, arousing fears and inducing early departures (Meglino et al. 1988). Still, the reduction preview did improve the retention of recruits who were *committed* to the army.

Considering another dimension of content, Hom et al. (1993) designed a preview about an occupation rather than a specific job in a particular company. They initially interviewed supervisors and accountants from several public accounting firms about accounting work and compiled their statements into a survey. Then they surveyed accountants in other firms, who confirmed the veracity of each statement. Comprising statements that 70 percent (or more) of the survey participants deemed valid, the RJP booklet thus described standard features of the accounting *profession* across twenty-seven firms. A later field experiment established that this occupational preview reduced voluntary exits among new accountants.

Most RJPs describe objective work conditions and employees' impressions, but subjective impressions of reality in the workplace may benefit newcomers most (Wanous 1989). Socialization studies show that new recruits are usually more ignorant of the intrinsic job content (for example, boring tasks and rare performance feedback) than of extrinsic work features (such as pay rates) (Wanous 1980). Thus, RJPs about how employees *feel* about the intrinsic qualities of work activities would most inform newcomers because these attributes are less visible and more abstract (*ibid.*)

### Moderators of RJP Efficacy

Early reports about the uneven effectiveness of RJPs stimulated conceptualizations of situational and personal moderators of their impact. In particular, RJPs may work best if newcomers are naive about the job and can freely choose to select themselves out of jobs they have previewed—that is, if they have other options (Breaugh 1983). Yet traditional RJPs primarily portray “simplistic and highly visible” service jobs, suggesting that many samples of RJP recipients already have relatively accurate expectations (Wanous and Collela 1989). Such visibility might explain why some tests report that RJPs fail for some jobs, such as those of bank tellers (Reilly et al., 1981). High unemployment may prevent the recipients of RJPs from declining job offers even when they discern a misfit between their needs and the organizational climate. Weak job markets may shortcircuit the self-selection process and thus undermine the effectiveness of RJPs (Wanous 1973).

**Job Complexity** Theorists have long maintained that RJPs most assist new entrants to complex roles (McEvoy and Cascio 1985; Reilly et al. 1981). They presume that complex jobs comprise more varied, enriched tasks than do

simple jobs. Because intrinsic work content is inherently abstract (Wanous 1980), the nature of complex work is thus less visible to outsiders (Wanous and Collella 1989). So realistic portrayals of complex work would prove more informative and reduce turnover better than previews of simple work do. McEvoy and Cascio (1985) and Reilly et al. (1981) found RJPs did benefit employees in complex work roles most, but Premack and Wanous (1985) did not.

Notwithstanding such conflicting evidence, Hom et al. (1993) argued that the predominance of simple jobs in past studies of RJPs understated moderating effects, restricting variance in job complexity (Rynes 1990; Wanous and Colella 1989): Range restriction attenuates not only predictor strength but also moderator effects (Hunter and Schmidt 1990b). In prior meta-analytical comparisons of the effects of RJPs across jobs of varying complexity, the jobs were categorized subjectively (McEvoy and Cascio 1985; Premack and Wanous 1985; Reilly et al. 1981). Without precise definitions of job complexity, such arbitrary classifications conceivably underlaid contradictory findings about the usefulness of RJPs for complex work (Wood, Mento, and Locke 1987).

Going beyond traditional hourly jobs (Rynes 1990), Hom et al. (1993) developed RJPs for accountants and registered nurses (RNs), whose occupations are more complex than those formerly examined and which may more readily disclose the superiority of RJPs for complex jobs. These professional RJPs reduced voluntary turnover among nurses—8.5 percent of whom quit as compared with 17.1 percent of a control group ( $\chi^2 [1, N = 158] = 2.62, p < .10$ )—and certified public accountants (CPAs)—5 percent of whom quit as compared with 17 percent of a control group ( $\chi^2 [1, N = 109] = 4.03, p \leq .05$ ). Just the same, the mean effect size for professional previews ( $r = .154$ ) did not significantly differ from previous estimates (.087, McEvoy and Cascio 1985; .06, Premack and Wanous 1985). Hom et al. assigned professional jobs and those from earlier RJP studies into groups of complex and simple jobs using *Dictionary of Occupational Titles* ratings (Avolio and Waldman 1990; Schaubroeck and Ganster 1993). Despite the objective job classification, the new meta-analysis did not generate larger correlations between RJPs and retention for complex jobs.

**Organizational Commitment** Organizational commitment may, according to Meglino and DeNisi (1987), moderate the efficacy of RJPs. They theorized that RJPs immediately deflate attraction to the new job and motivate early withdrawal. During early employment, employees who received RJPs must somehow be bound to a job whose allure the RJP has tarnished. Only then can they later experience the ameliorating processes set in motion by the RJPs (met expectations, coping ability, and so on) and thus survive longer than employees who were not given RJPs. Meglino and DeNisi (ibid.) conceived of several factors that bind new hires during early employment: high unemployment rates, attractive jobs, and contractual obligations.

Empirical work found mixed support for the moderation of RJP success by commitment, which bonds newcomers during initial employment. Meglino et al. found that RJPs bolstered retention more for committed army

recruits than for the uncommitted recruits (1988), and no difference among committed and uncommitted correction officers (1990). Hom et al. (1993) found that RJPs lowered quits more for committed than uncommitted CPAs but benefitted uncommitted RNs more than the committed. To explain such discrepancies, Hom et al. (ibid.) proposed that the relevant moderator is *occupational* rather than organizational commitment. Studies of CPAs and military recruits that report beneficial effects for committed newcomers were measuring occupational attachment; studies, in which the moderating effects of commitment were not disclosed, had been measuring organizational commitment among RNs and correction officers.

## JOB ENRICHMENT

Job enrichment is another promising intervention for reducing turnover (McEvoy and Cascio 1985). According to prevailing models of task design, employees find work motivating and attractive to the extent that they learn (by knowing the results) that they themselves (being personally responsible) performed well on a job they care about (felt as meaningful) (Hackman and Oldham 1976, 1980). These “critical psychological states” derive from certain characteristics of a job: variety of skill (using various skills and talents); task identity (doing a whole and identifiable piece of work); task significance (doing work that substantially affects the work or lives of others); autonomy (freedom to schedule work and work procedures); and job feedback (obtaining direct and clear information about performance) (Hackman and Oldham 1980).

Several research streams indicate that job enrichment can curb turnover. Correlational studies find that employees holding complex jobs are less likely to quit (Katerberg, Hom, and Hulin 1979; Price and Mueller 1981, 1986). McEvoy and Cascio’s meta-analysis (1985) revealed that field experiments enriching jobs reduced turnover more effectively than did RJPs. That is, the effect of job enrichment ( $r = .17$ ) exceeded the effect of RJPs ( $r = .09$ ). Even so, the former estimate was based on only five studies, and only two of them randomly assigned participants to treatments (one experiment found no impact on turnover [Locke, Sirota and Wolfson 1976]). Nonetheless, Griffeth (1985) did randomly assign part-time university desk receptionists to enriched or unenriched work conditions. Following Hackman and Oldham’s implementing principles (1980), he enriched the job—upgrading skill variety, task significance, and job feedback—and found that enriched work indeed reduces turnover.

## WORKSPACE CHARACTERISTICS

Oldham and his colleagues (1988; Oldham and Fried 1987; Oldham, Kulik, and Stepina 1991; Oldham and Rotchford 1983) theorized that physical

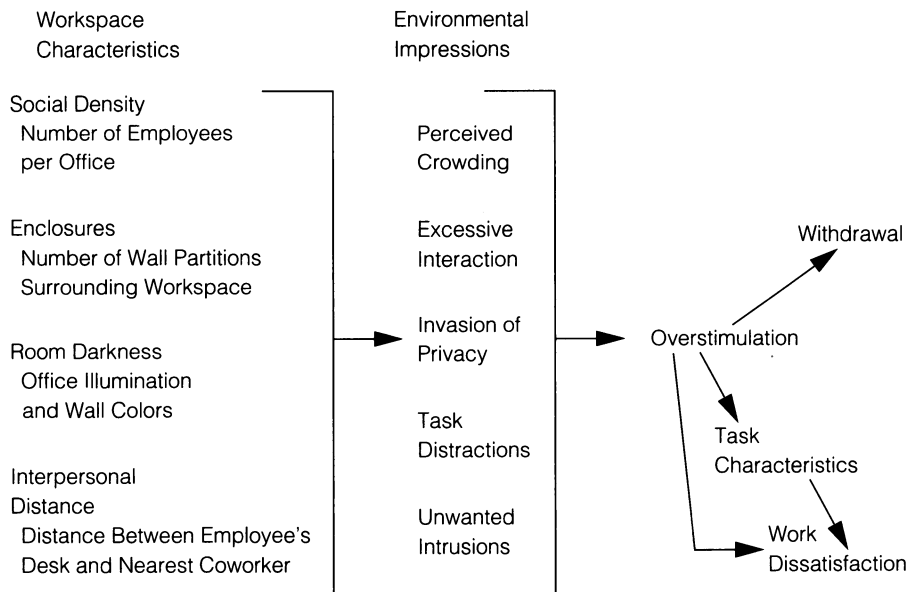
characteristics of the work environment shape attitudes to work and withdrawal behavior. Drawing from overstimulation theory, Oldham reasoned that certain features in a workplace excessively stimulate employees, producing a psychological state of stimulus overload that evokes dissatisfaction and work avoidance. Social density, the total number of people in a work area, overly stimulates employees, who feel overcrowded and engage in more interpersonal conflicts (Oldham and Fried 1987). Dim lighting and drab wall colors increase perceptions of spatial restriction, inducing overstimulation (ibid.). Office enclosures, walls or partitions surrounding a work area, limit unwanted or unexpected intrusions and insure privacy. Distance from colleagues in the work place reduces perceptions of crowding and distractions.

Besides affecting morale, attributes of the workspace shape perceptions about the job (Oldham and Rotchford 1983). For example, employees working in open offices that have few interior walls or partitions may feel less autonomous because unwanted intrusions interfere with their freedom to work. They may also feel less task identity because they notice the work of others and the continuous work flow in the office. If they view the product of the entire office as the whole unit of work, they may see their own contribution as only a small piece of this product. Open offices also affect perception of the significance of the task. By observing how their work affects others, employees in open offices may regard their own jobs as more or less significant, depending on its actual effects. Oldham's model of workplace overstimulation is summarized in Figure 9-3.

Testing this theory, Oldham and his colleagues (Oldham and Fried 1987; Oldham and Rotchford 1983) demonstrated that attributes of the workspace explained 31 percent of the variance among clerical workers' work satisfaction. The combined effects of dark rooms, few enclosures, close work areas, and overcrowded offices most elicited dissatisfaction. Oldham and Rotchford (1983) showed that characteristics of the task at hand partly mediated the effect of unpleasant workspaces. Offices with few interior boundaries reduced task significance, autonomy, and task identity, and darkness lowered autonomy. Open offices enhanced task significance. Oldham and Fried (1987) found that the main and interactive effects of the attributes of an office explained 24 percent of turnover variance, with multiple conditions of overstimulation increasing turnover most.

Using a quasi-experiment, Oldham (1988) further examined the effects on insurance claims adjusters of changes in the layout of three open-plan offices lacking interior walls or partitions. Two of the offices were changed from the open-plan design, one to a partitioned design, the other to a low-density open-plan design. The third office remained unchanged. Adjusters moving to the new office configurations that reduced overstimulation reported improvements in privacy, task communication, and crowding. Employees moving to the low-density open office felt more work satisfaction than did those who moved to the partitioned office or those who did not move.

Stimulus-screening skills and job complexity moderate reactions to distractions in the workplace (Oldham, Kulik, and Stepina 1991). *Screeners* are



**Figure 9-3 Theory of Workspace Overstimulation.** (G. R. Oldham, and N. L. Rotchford, "Relationships between office characteristics and employee reactions: A study of the physical environment" *Administrative Science Quarterly*, 28 (1983): 542–547.)

more adept than *nonscreeners* are at filtering out extraneous intrusions and thus feel less perturbed when working in dense, crowded offices without interior walls. Employees doing simple jobs may be more disturbed by unshielded environments than are those with complex jobs because the work is not psychologically absorbing. Oldham, Kulik, and Stepina (1991) found that government employees with poor screening skills or doing simple tasks were less happy if their offices were crowded, had few enclosures, or had not much space separating them from their fellow workers.

Given these encouraging findings, workplace protections against stimulus overload may enhance retention. Future inquiry must substantiate this possibility directly. To date, most research studies have considered attitudinal responses to invasive office settings (Oldham 1988) or predictions of turnover from attributes of workspaces (Oldham and Fried 1987). Field experiments (or quasi-experiments) must directly verify that improvements restricting unwanted or unexpected intrusion in offices do truly diminish turnover.

## SOCIALIZATION PRACTICES

Turnover is primarily concentrated among new employees (Mobley 1982a; Murnane, Singer, and Willett 1988; Wanous 1980) whose morale and

commitment fall precipitously during early tenure (Hom and Griffeth 1991; Wanous 1980). Excessive premature quits implicate inadequate or incomplete organizational socialization as a fundamental cause (Feldman 1988; Fisher 1986). In the following section, we review socialization programs that might facilitate the difficult, stressful adaptation to new work roles. According to many socialization scholars, newcomers must define the work role, win collegial acceptance, resolve conflicting demands, and develop proficiency in the job to become established (*ibid.*). Attesting to the benefits of assistance in socialization, Corning Glass Works found that an improved orientation program saved over \$250,000 per year in turnover costs among new professionals (Turbin and Rossé 1990).

### **Socialization Programs**

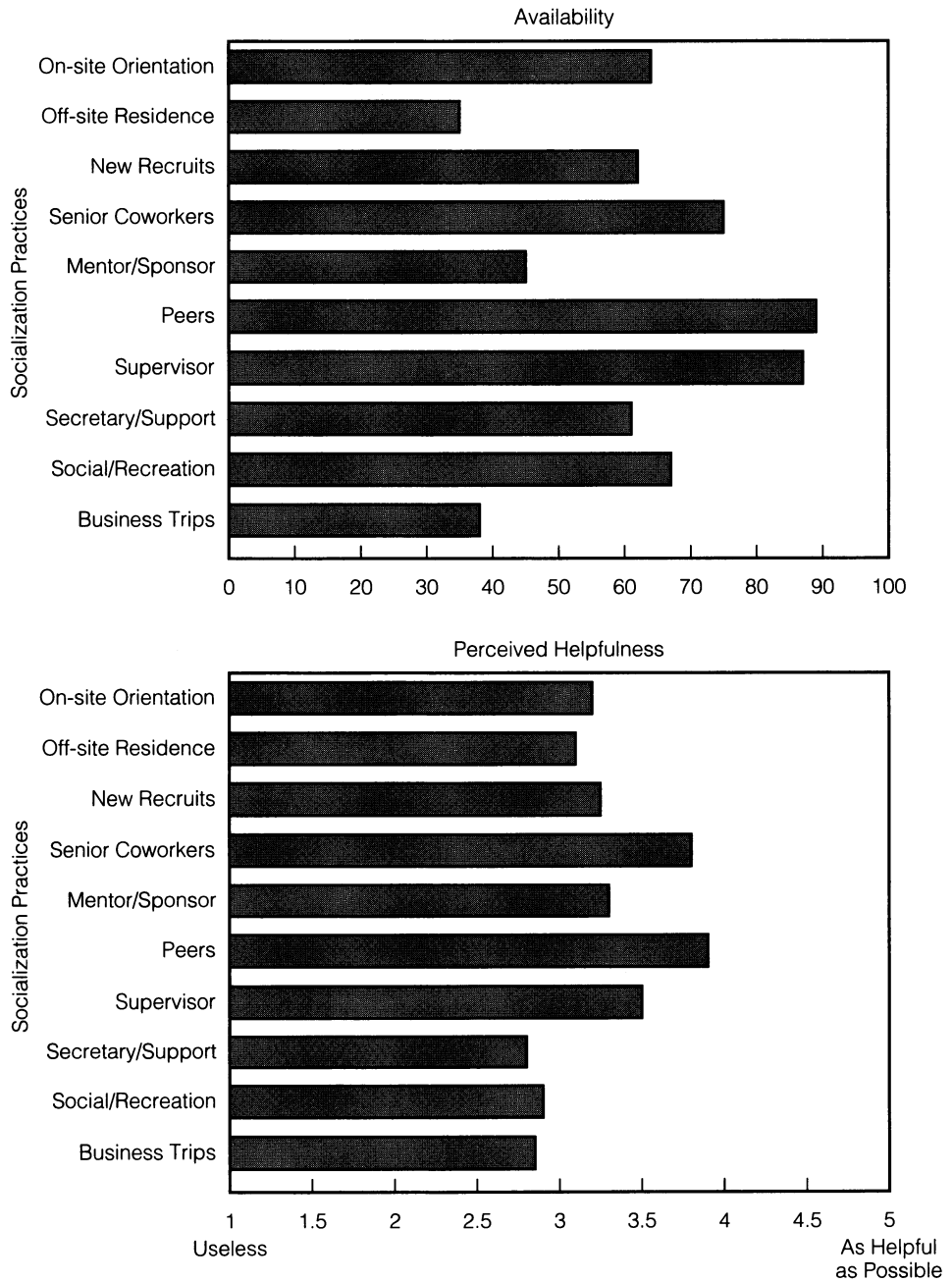
Though theories about organizational socialization abound, descriptions about successful practices are scarce. To close this knowledge gap, Louis, Posner, and Powell (1983) surveyed new business graduates, who reported on the availability and helpfulness (using a five-point scale) of various socialization practices and their own attitudes to work. The results of the survey are shown in Figure 9-4: Peers, supervisors, and senior coworkers offered newcomers the most assistance. Surprisingly, business graduates regarded formal programs, such as on-site orientation and offsite residential training, as less helpful and despite popular writings, mentors or sponsors were neither available nor helpful to new graduates (see Kantor 1977).

Correlations indicating which socialization practices promoted job satisfaction and tenure intentions are shown in Figure 9-5. Although not widely endorsed by graduates, favorable offsite residential training and business trips most improved morale and intentions of staying. Louis, Posner, and Powell's findings (1983) are intriguing but warrant experimental or quasi-experimental replications to validate whether these socialization practices truly aid retention.

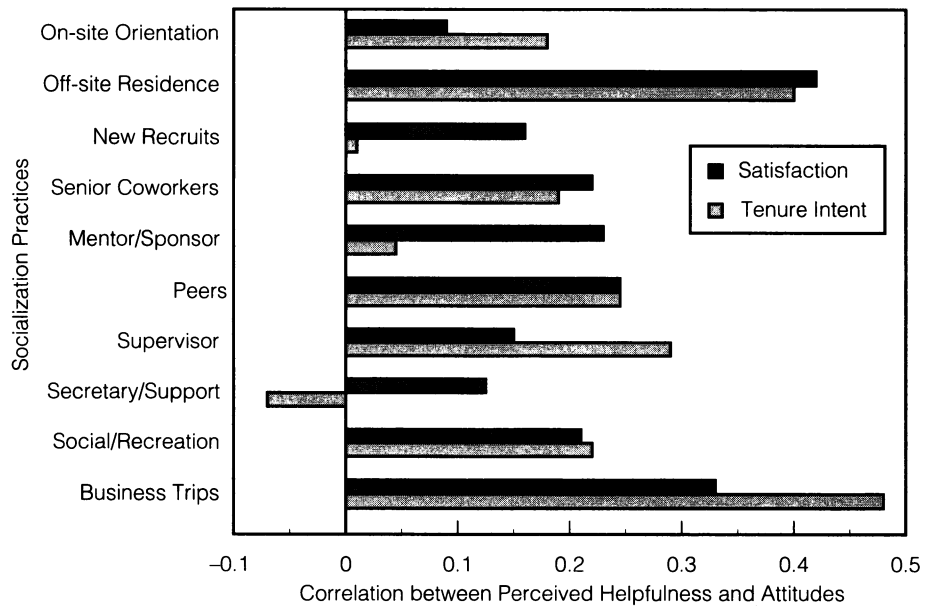
### **Reality Shock Programs**

Using quasi-experimental designs, several studies evaluated special orientation programs to help nursing graduates adjust to hospital life. Kramer and Schmalenberg's "bicultural training" (1977) is the most acclaimed program, serving as model for others. Once a week during the first six weeks of employment, nursing graduates attend ninety-minute "rap sessions," at which they share problems and ways to cope with them (and develop a "same boat consciousness," Van Maanen and Schein 1979, p. 233). During the fourth week, new nurses read Kramer and Schmalenberg's workbook descriptions of common forms of reality shock, such as infrequent feedback and feelings of incompetence. Between four and five months after entry, the nurses also attend conflict-resolution workshops—first separately and later with their





**Figure 9-4 Availability and Helpfulness of Socialization Practices.** (M. R. Louis, B. Z. Posner, and G. N. Powell, "The availability and helpfulness of socialization practices." *Personal Psychology*, 36 (1983): 861.)



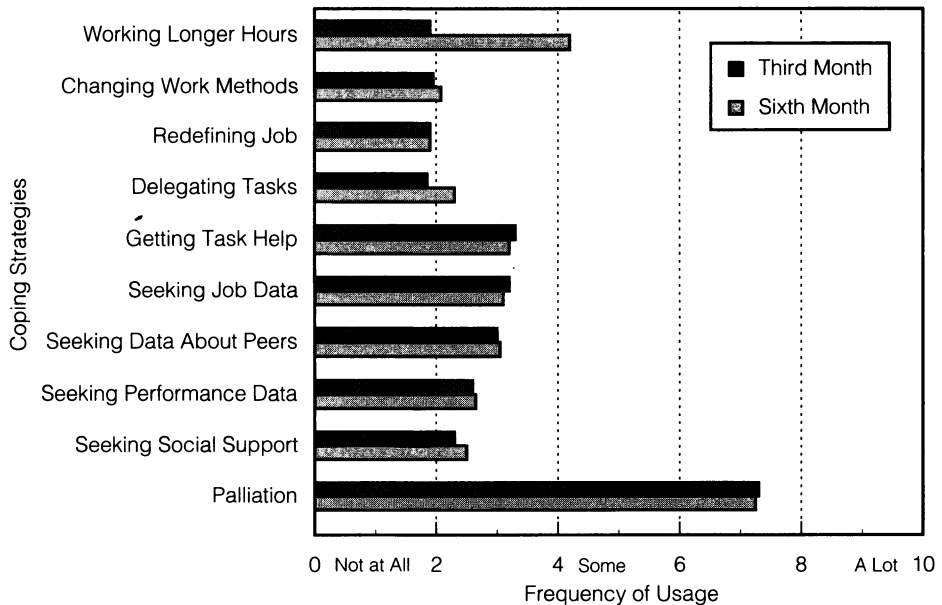
**Figure 9-5 How Socialization Practices Affect Job Satisfaction and Tenure Intentions.** (M. R. Louis, B. Z. Posner, and G. N. Powell, "The availability and helpfulness of socialization practices." *Personal Psychology*, 36 (1983): 863.)

head nurses—at which they role play ways to deal with routine conflicts, a common developmental hurdle for newcomers (Feldman 1976, 1988).

Kramer (1977) first evaluated bicultural training by recruiting 260 new RNs from eight medical centers. Half these RNs received bicultural training, while others received a traditional orientation. After a year, 90.2 percent of the biculturally trained nurses remained employed, whereas 60.2 percent of the control-group nurses had quit. Similarly, Holloran, Mishkin, and Hanson (1980) found that only 3 percent of the nurses who completed the bicultural training resigned; the quit rate before the program began had been 42 percent. Many hospital orientations now include "reality shock" components (lectures, rap sessions) and instruction in clinical skills (addressing graduates' insecurities about their professional competence [Borovics and Newman 1981]). Reviewing these programs, Weiss (1984) concluded that comprehensive orientations reduced turnover: Seven percent of the trained nurses (compared with 31 percent of the nurses hired without this training) quit.

### Coping Skills

Socialization theorists describe assimilation as a stressful time for newcomers (Feldman and Brett 1983) who may find their personal resources taxed or exceeded and their mental well-being endangered (Lazarus and Folkman 1984). Feldman and Brett (1983) documented the fact that new



**Figure 9-6 Coping Strategies of New Hires.** (D. C. Feldman and J. M. Brett, "Coping with new jobs: A comparative study of new hires and job changers," *Academy of Management*, 26 (1983): 268.)

hires often practice many coping strategies during the early months of employment, such as soliciting help from others and palliation (reducing anxiety through chemical substances) (see Figure 9-6).

Self-management training may assist newcomers to develop mechanisms for coping with transition stress and improve their job survival (Manz 1991; Manz and Sims 1980; Manz and Sims 1989). This training is based on social learning theory, which submits that perceived self-efficacy and outcome expectancies underlie motivation (Frayne and Latham 1987). Self-efficacy is the personal belief that one can successfully execute the behavior and it influences behavioral choice and effort. But people must also expect rewarding consequences from performing the act—that expectancies for the outcomes will be more positive rather than negative. Otherwise, they have little incentive to execute the behavior.

Designed to surmount problem behaviors, self-management training instructs individuals in various cognitive and behavioral strategies designed to change their beliefs about self-efficacy and their expectancies for the outcomes of those behaviors. Individuals may follow a strategy of self-observation to collect systematic data about the problem behavior. Such data provide feedback for later self-reinforcement and may pinpoint underlying behavioral causes. People can set specific goals (including intermediate behavioral goals) to overcome behavioral problems and thus enhance their self-efficacy. With cueing strategies, they can develop self-efficacy by limiting their

exposure to environmental cues that encourage the maladaptive behaviors, while increasing their exposure to cues that evoke the desired actions. People can gain more behavioral control through rehearsal, systematically practicing a competing, more desirable act. Individuals can also improve outcome expectancies by identifying and administering reinforcers for behavioral improvements (Manz 1991b). Many clinical interventions involving self-management practices have helped individuals cope with weight loss and smoking (Frayne and Latham 1987).

Adapting self-management to the workplace, Frayne and Latham (*ibid.*; Latham and Frayne 1989) trained twenty unionized state-government employees to reduce absenteeism. The trainees received eight weekly, one-hour, group sessions at which they learned to set proximal and distal goals for attendance, write a behavioral contract with themselves for dispensing self-chosen reinforcers and punishers, monitor their own attendance behavior, administer incentives, and brainstorm about potential interference with adherence to this training and find solutions for the problem. Trainees attended work more regularly than did an untrained control group over a twelve-week period after training and maintained their superior attendance record nine months later (*ibid.*).

Extending self-management theory and training, Manz and Neck (Manz 1992; Manz and Neck 1991; Neck and Manz 1992) developed a “thought self-leadership” (TSL) program to foster constructive thinking patterns (Judge and Locke 1993). They reasoned that maladaptive behaviors are rooted in distorted and unrealistic beliefs that undermine self-efficacy and outcome expectancies (Burns 1980). To modify dysfunctional thinking, Manz and Neck (1991) proposed that employees facing stressful events first observe and record their existing beliefs, self-verbalizations, and mental imagery patterns. For example, a new employee may feel anxious about an upcoming presentation to higher management. She may feel that this presentation will be poorly received by the audience (belief), may tell herself that she cannot speak effectively (self-talk), or may imagine hostile reactions from the audience (mental imagery).

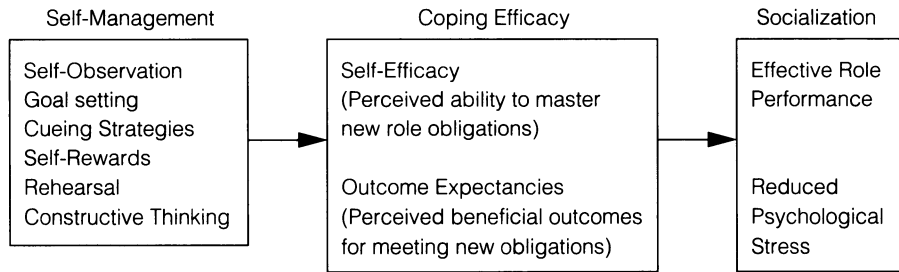
The TSL program next prescribes that employees analyze the functionality and constructiveness of those beliefs, self-talk, or imagery. Employees would challenge the validity of their distorted beliefs by identifying the form of dysfunctional thinking that they mirror. Various dysfunctional beliefs chronicled by Burns (1980) are shown in Figure 9-7. Continuing with our example, the employee’s belief that the audience would dislike her presentation may represent “jumping to conclusions.” By identifying a belief’s dysfunctional form, employees can develop more functional, constructive thinking patterns to replace the dysfunctional thought. That is, using various techniques, they might generate plausible counterarguments to refute an irrational belief (see Burns 1980, 1988). For example, the anxious speaker might convince herself that her fears are groundless because she has delivered well-received presentations in the past. Last, the TSL program requires continued monitoring over time of one’s thinking pattern.

- All or Nothing Thinking
    - Viewing things as black or white
  - Over-generalization
    - Specific failure is seen as endless pattern of defeat
  - Mental Filter
    - Excessive dwelling on single negative detail
  - Disqualifying Positives
    - Discount positive aspects in an event
  - Jumping to Conclusions
    - Drawing negative conclusions without concrete evidence
  - Magnifying and Minimizing
    - Exaggerate importance of negatives but minimize positives
  - Emotional Reasoning
    - Interpret reality through negative emotions
  - Should Statements
    - Use "should" and "must" to motivate
  - Labeling and Mislabeling
    - Describing oneself or others with negative labels
  - Personalization
    - Blaming oneself for negative event even though not primarily responsible
- 

**Figure 9-7 Forms of Dysfunctional Thinking.** (D. Burns, *Feeling good: The new mood therapy*, NY: William Morrow and Company, Inc. (1980): 42–43.)

Recently, Neck (1992) evaluated TSL training in a field experiment. He recruited forty-eight employees of an airline operating under bankruptcy regulations, randomly assigning twenty-four to training and twenty-four to a control group. During a six-week period, the trainees were enrolled in two-hour sessions in which he instructed them on self-talk, mental imagery, managing beliefs and assumptions, thought patterns, and preventing relapse. Afterwards, the trainees expressed more positive moods and higher job satisfaction than the control group did and maintained higher affective states a month after training. Though Neck found no evidence that training affected turnover, no research participant had left during the study. Given the ongoing recession, employees probably felt pessimistic about finding other employment in a bleak job market in the airline industry—a pessimism surely compounded by their firm's bankruptcy.

Although unproven for socialization problems, self-management training (including TSL) may well help newcomers adapt to the new job. This application might first identify the socialization tasks that are customarily difficult and stressful for newcomers to a given job. For example, Kramer and Schmalenberg (1977) identified common frustrations for new nurses, such as dealing with older coworkers and having insufficient time for quality patient care. A self-management program would help newcomers develop behavioral strategies to cope with those situations, including



**Figure 9-8 Coping with Newcomer Stress.**

changing the work environment (Feldman and Brett 1983). What is more, a TSL component would reduce newcomers' stress by helping them challenge their illogical interpretations (often the result of exaggerated feelings of inadequacy or pessimism) of socialization difficulties (Burns 1980; Lazarus and Folkman 1984). Parsons, Herold, and Leatherwood (1985) found that new employees attributing their performance to luck (possibly an irrational belief) were more likely to resign than were those explaining their performance in terms of ability. Judge and Locke (1993) found that habitually dysfunctional thinkers felt more job dissatisfaction, avoided work more frequently, and spent more time thinking about quitting. A prospective self-management program to help new employees deal with transition stress and improve their job survival is shown in Figure 9-8. The determination of whether self-management (and TSL) can reduce turnover, especially among newcomers, awaits future scholarly inquiry.

## LEADER-MEMBER EXCHANGE

Graen and his associates developed a theory about leadership that emphasizes a superior's role in the assimilation and retention of newcomers (Dansereau, Graen, and Haga 1975; Graen and Scandura 19896). During the socialization period, superiors initiate special working relationships—or high “leader-member exchanges” (LMX)—with some new subordinates and offer them inducements, such as job latitude, decision-making influence, information, and support, that go beyond the formal employment contract. In return, high-LMX subordinates express higher commitment and assume more unit responsibilities. With other, low-LMX subordinates, superiors rely on formal authority rather than social exchange to elicit role compliance.

According to socialization theories, high-LMX exchanges may facilitate a newcomer's adaptation (Feldman 1988; Fisher 1986). Superiors communicate more often with high-LMX newcomers, which improves role definition—a vital developmental stage (Dansereau, Graen, and Haga 1975).

Moreover, high-LMX newcomers negotiate their work roles with superiors and thus obtain tasks that they value and can do, thereby becoming initiated into the task, another developmental milestone (Feldman 1988). Superiors also express more social support for high-LMX newcomers, alleviating transition stress. With the enhanced socialization, research finds higher job satisfaction and retention among high-LMX than among low-LMX subordinates (Dansereau, Graen, and Haga 1975; Ferris 1985; Graen and Ginsburgh 1977; Graen, Liden, and Hoel 1982).

Drawing from LMX research, Graen, Novak, and Sommerkamp (1982) designed a leadership program that, in six two-hour sessions, trains managers to form high-quality social exchanges with subordinates. Using lecture and role playing, this program instructs superiors about the LMX model, active listening skills, techniques for exchanging mutual expectations and resources, and developing and practicing one-on-one sessions. Then managers meet with each subordinate and they follow a prepared script to communicate their concerns and expectations about each other's job and their working relationship.

An initial field experiment found that LMX training increases productivity over a twelve-week period and improves the subordinate's job satisfaction and perceived job complexity (Graen, Novak, and Sommerkamp 1982). Following this test, Scandura and Graen (1984) showed that the training can reverse initially poor dyadic exchanges between superiors and low-LMX members and ultimately boost the subordinates' morale and productivity. Graen, Scandura, and Graen (1986) found that subordinates having strong growth needs most welcomed LMX training for their leaders who engaged in more collaboration and developed interdependent working relationships with them, enriching their work. Subordinates with high growth needs who were working for LMX-trained superiors outproduced subordinates with low growth needs by 55 percent.

In conclusion, LMX training holds great promise for sustaining job tenure. Although there are no experiments showing that LMX training reduces exits, field experiments affirm that this training promotes the quality of work life for subordinates—an essential basis for loyalty to the firm (McEvoy and Cascio 1985)—and correlational studies verify that subordinates engaging in high-quality dyadic exchanges with leaders are less likely to leave.

## EMPLOYEE SELECTION

### Biographical Predictors

To insure a more stable, satisfied work force (Kinicki, Lockwood, Hom, and Griffeth 1990), employers typically screen out job applicants when they evince job instability—popularly known as the “hobo syndrome” (Hulin 1991; Ghiselli 1974)—or the likelihood that they will not find satisfaction on the job (Judge 1992). To date, the weighted application blank (WAB) has yielded the most accurate predictions of turnover (Cascio 1976; Cotton and

Tuttle 1986; Schmitt, Gooding, Noe, and Kirsch 1984). WABs are application forms converted into tests. For this conversion, we first examine current and former employees' past answers to items on an application blank completed during their hiring. We seek items that elicited different responses from long- and short-term employees (Gatewood and Field 1987). After identifying the discriminating items, we derive a key that assigns different scores to the two groups' dissimilar answers. Summing scores on these particular items generates a test score indicating propensity for turnover. After the WAB is developed, candidates fill it out and those whose computed WAB scores suggest job instability would be screened out.

Fearing charges of discrimination, few companies actually use WABs, despite their predictive validity (Gatewood and Fields 1987). Inquiries about some demographic traits violate state fair-employment statutes, and screening based on certain background attributes (such as residence) may disproportionately reject minority or female applicants (*ibid.*). Besides, the apparent irrelevance of certain questions and potential invasion of privacy may prompt discrimination lawsuits (Breugh and Dossett 1989). Companies may face impaired public relations and sizable litigation costs to defend so-called unfair questions. In spite of evidence that the questions are related to the job, some federal courts have even overturned WABs because firms failed to defend WABs as the best selection device by proving that alternative selection methods with less adverse impact do *not* exist (Arvey and Faley 1988; Breugh and Dossett 1989).

To expand the use of WABs, Breugh and Dossett (1989) advanced a more rational basis for choosing biographical data. Traditional empirical approaches provide little understanding about the reasons that biodata items predict turnover and they require large samples from which scoring keys may be developed. Breugh and Dossett recommended that WABs include only biodata items that are verifiable (to encourage honesty among applicants) *and* that are known, according to accepted psychological theories, to underlie turnover. The selection of such items would improve the face validity of WABs, making them less objectionable to applicants.

Following these criteria, Breugh and Dossett designed a WAB to predict turnover among bank tellers. They chose tenure on the previous job as a predictor, a choice that accords with the maxim: "Past behavior is the best predictor of future behavior." They also selected employee referrals (a recruitment source) and relevance of prior work experience to index the realism of expectations, an underpinning—according to met-expectation theory (Wanous 1980)—of job survival. Last, they added educational attainment, presuming that educated applicants are more likely to quit because they have better job opportunities elsewhere (Cotton and Tuttle 1986). Altogether these biodata items moderately predicted turnover ( $R = .44$ ). The Breugh-Dossett method represents a practical (because it avoids the large-sample requirements of empirical scoring keys) and defensible (because it uses theory-based item selection) way to design WABs and may overcome resistance from employers.



## Personality Predictors

In contrast to the efficacy of WABs, traditional research reports disappointing predictive validity for personality measures and interest inventories (Griffeth and Hom 1988b; Mobley 1982a; Mowday, Porter, and Stone 1978; Muchinsky and Tuttle 1979; Porter and Steers 1973). Generally speaking, early studies showed that personality tests provided modest or insignificant predictions of turnover. For example, Griffeth and Hom (1988b) calculated that the widely fluctuating correlations reported in published reports averaged *merely* .18. Such ubiquitous findings thus motivated Muchinsky and Tuttle to conclude that personality has a “very marginal impact on turnover (1979, p. 48).”

In the wake of modern personality research, pessimistic conclusions about personality predictions of quits are nevertheless premature. For one, conventional narrative reviews underestimated predictive validity (and overestimated inconsistency in predictors) because they did not take into account statistical artifacts, such as unreliability, range restriction, and sampling error (Hunter and Schmidt, 1990b). Recent meta-analyses conclude that personality tests do reliably predict turnover (Barrick and Mount 1991; Schmidt et al. 1984). Schmidt and his colleagues estimated (1984) a sample-weighted mean validity coefficient of .121 between personality tests and job retention. This validity (corrected only for sampling error) does not exceed Griffeth and Hom’s (1988a) .18 estimate, but early reviewers misinterpreted the utility of so-called modest predictive validities (Premack and Wanous 1985). After all, a predictor’s true usefulness depends, not only on its predictive validity, but also on selection ratio (proportion of applicants hired to those applying) and base rate (proportion of employees who quit) (Arvey and Faley 1988). To illustrate, Premack and Wanous (1985) showed that an .12 correlation between RJP and job survival (which scarcely differs from existing personality validities) translates into a 6 percent improvement in job survival due to RJP’s if the job survival rate is 80 percent (a high base rate), and an impressive twenty-four percent gain for a 20 percent survival rate (a low base rate).

Early critics condemned personality inventories as susceptible to falsification by job applicants, who present themselves in a favorable light to obtain employment (Bernardin 1987). Contemporary investigations dispute this claim, documenting that job applicants do not usually distort descriptions of themselves any more than incumbents do (Hough, Eaton, Dunnette, Kamp, and McCloy 1990). Tett, Jackson, and Rothstein’s meta-analysis (1991) concluded that personality scales do *not* predict recruits’ performance less validly than that of current employees, contradicting accepted wisdom that recruits tend to falsify self-descriptions to obtain employment and thus undermine the validity of personality scales. Hough et al. (1990) found that a measure of social desirability (or the deliberate self-inflation of personal qualities) barely moderated the predictive validity of personality inventories. That is, the criterion-related validity of personality scales was

only slightly lower for employees given to inflated self-descriptions than for employees who accurately describe themselves.

In traditional work, personality measures were often adopted arbitrarily without much thought being given to their theoretical correspondence to turnover or job behaviors (Tett, Jackson, and Rothstein 1991; Weiss and Adler 1984). Yet Tett, Jackson, and Rothstein's meta-analysis (1991) revealed much stronger predictive validities (.294) when personality scales were chosen for their clear conceptual linkages to performance criteria than when empirically chosen without any rationale for their performance linkages (.121). Trait measures selected on the basis of job analysis that identified a job's personality requirements produced a mean predictive validity of .375. Barrick and Mount's meta-analysis (1991) reported higher validity coefficients when personality tests matched occupational requirements. For instance, extraversion positively related to sales effectiveness but negatively to professional performance (where work is often done alone).

In traditional reviews, predictive validities were collapsed across different personality dimensions, the possibility that some dimensions predict turnover more accurately than do others being overlooked. Present-day meta-analyses estimating predictive validities for the "Big Five" personality dimensions—an emerging taxonomy for classifying personality traits—disclose different validities (Barrick and Mount 1991; Tett, Jackson, and Rothstein 1991). Barrick and Mount (1991) discovered that conscientiousness (for which the average correlation was .12, after correcting for sampling error, range restriction, and measurement error), agreeableness (corrected correlation = .09), and openness to experience (corrected correlation = -.11) best predicted job retention across various occupations. Extraversion (correlation = -.03) and emotional stability (correlation = .02) barely predicted tenure.

***Affective Disposition*** Contemporary dispositional research also suggests that personality traits might influence job stability. In particular, a growing body of research has implicated "negative affectivity" (NA) (Staw, Bell, and Clausen 1986) as a dispositional source of job satisfaction. A person with a NA personality evaluates oneself, others, and situations unfavorably, and thus experiences negative emotional states (Brief, Burke, George, Robinson, and Webster 1988; George 1990). Prone to cynicism, NA individuals process work cues negatively and thus feel more job dissatisfaction (Staw, Bell, and Clausen 1986). In a striking study, Staw and colleagues showed that NA measures taken during adolescence reliably forecast job attitudes in adulthood—predicting satisfaction as long as fifty years later: The adolescents who had viewed life negatively eventually judged their adult work unfavorably. Other research extended these findings, showing that the NA trait encourages absenteeism and intentions to quit, while discouraging prosocial actions (George 1989, 1990).

Nevertheless, Judge (1992, 1993) identified many conceptual and methodological pitfalls in studies on dispositional sources of job satisfaction.

Specifically, popular NA measures confuse affect intensity and affect frequency and presume a false dichotomy between negative and positive affectivity. Most of all, NA research mainly demonstrates how subjective well-being rather than affective traits shapes morale (Judge and Locke 1993). Dispositional studies do not distinguish between a general disposition to be satisfied (affective disposition) and how happy an individual currently is with his or her life (affective state) (Judge, 1992; Judge and Hulin 1993).

Judge (1993) proposed an alternative index of affective disposition adapted from Weitz (1952). Weitz's "gripe index" assesses satisfaction with forty-four items common in everyday life, such as the way people drive and the income tax. This index may measure the dispositional trait of affective orientation better than do existing NA indices, which reflect experienced affect. After adapting Weitz's scale (deleting confounded and irrelevant items and modernizing the wording), Judge (1992, 1993; Judge and Locke 1993) showed that this measure discriminably differed from subjective measures of well-being (which included negative and positive affectivity scales). Importantly, Judge and Locke (*ibid.*) found that this dispositional index influenced job satisfaction and work avoidance indirectly through subjective well-being.

Recently, Judge (1993) demonstrated that the Weitz scale moderates the translation of job dissatisfaction into exits. Extending Weitz's reasoning (1952), Judge argued that employees positively disposed toward life are more likely to quit a dissatisfying job than are the negatively predisposed employees. Relative to other things in their lives, happy individuals feel more dissatisfied with a bad job than do unhappy individuals, for whom job dissatisfaction is no more meaningful or exceptional than other dissatisfying events in their lives. Judge found higher correlations between job satisfaction and voluntary quits for medical clinic personnel with positive orientations than for the negatively disposed employees.

***Person-Environment Fit*** The research stream on the fit between person and environment also suggests that personality can forecast quits (Chatman 1991). Following interactional psychology (Schneider 1985), O'Reilly, Chatman, and Caldwell (1991) reasoned that shared and deeply held values of the members of an organization embody the organizational culture and that an employee's adherence to those cultural values fosters his or her commitment to the company (O'Reilly and Chatman 1986). To assess the fit between a person and a company, O'Reilly, Chatman, and Caldwell (1991) introduced the Organizational Culture Profile (OCP). The OCP compares people and organizations according to values (enduring preferences for a specific mode of conduct or end-state of existence [Rokeach 1973]) that are relevant and commensurate descriptors of both individuals and companies.

The OCP identifies value profiles for the individual and the firm and uses a template-matching procedure to assess the similarity of their profiles

(Caldwell and O'Reilly 1990; O'Reilly, Chatman, and Caldwell 1991). To generate a personal profile, an employee is asked to use a Q-sort procedure to classify fifty-four value statements (drawn from extensive writings about corporate culture) into nine categories, ranging from the most to the least descriptive of her *ideal* company, and to allocate a specified number of statements into each category. Specifically, a respondent sorts fewer items into the extreme categories and more items in the middle categories, following this distribution for items: 2-4-6-9-12-9-6-4-2. For a profile of the firm, senior managers sort value statements according to which they describe the firm following the same distribution pattern. The correlation between individual and firm profiles then yields a person-company fit score. An idiographic approach, the OCP is a methodological breakthrough over customary personality tests because it assesses the relative salience and configuration of variables (values) *within* entities (persons or firms) rather than the relative standing of entities across variables (Caldwell and O'Reilly 1990). O'Reilly, Chatman, and Caldwell (1991) and Chatman (1991) further validated the OCP, showing that person-culture fit among new accountants predicted job attitudes and retention, albeit the latter modestly ( $r = .16$ ).

Operationalizing person-job fit differently, Bernardin (1987) designed a forced-choice personality inventory to screen out job applicants ill-suited for work as customer service representatives. A forced-choice inventory controls falsification by having respondents choose a descriptor from a pair of descriptors matched on social desirability—only one of which is a valid choice. Bernardin interviewed employees and superiors to identify discomfiting work events and wrote statements about those events. He also generated statements about discomfiting situations that were irrelevant to the job and had judges rate the discomfort levels of both the relevant and irrelevant statements. The final inventory comprised pairs of relevant and irrelevant statements matched for discomfort levels. Respondents would choose statements depicting events most distressing them. For example, a job applicant would circle two of the following situations that would most discomfort her (a valid item is indicated with a v):

1. You must be indoors on a sunny day (v)
2. You are stood up for an appointment
3. You hear your neighbors argue (v)
4. You are the only employee to forget to get the boss a birthday card.

Using a concurrent validation design, employees completed the personality inventory. It transpired that those selecting many valid discomfiting descriptions resigned more often ( $r = .31$ ). In essence, this personality scale identifies people who would fit the job poorly because they would be disturbed by stressful events that are part of the job and would more readily withdraw from the occupation.

## Personality Testing and Retention

Modern research has established that personality scales, given methodological and theoretical advancements, can predict terminations. Barrick and Mount (1991) validated conscientiousness, openness to experience, and agreeableness as robust predictors. Yet employers may best increase the predictive validity of personality tests by identifying the personality requirements of a given job by analyzing the job and then choosing (or developing) valid measures of *relevant* personality constructs (Tett, Jackson, and Rothstein 1991). Employers might safeguard themselves against applicants who distort their self-descriptions by including social desirability scales, even though current research refutes the persistent myth that the falsification of personality scales is pervasive or that it automatically threatens predictive validity (Hough et al., 1990). Such scales may identify dishonest job candidates (motivating a closer scrutiny of other hiring criteria) and may statistically adjust personality scores for intentional falsifications (Bannister, Kinicki, DeNisi, and Hom 1987). Employers might develop forced-choice personality inventories to control for social desirability bias (Bernardin 1987). That said, we urge future research that uses predictive validation designs to substantiate directly these guidelines for identifying valid personality predictors of turnover.

Rather than selection, employers might use measures of affective traits (or states) to assign negatively oriented newcomers to work groups that have positive affective tones (that is, shared norms of positive affectivity) to curb their morose affect (George 1990). Mood elevation may in turn reduce work avoidance. OCP company profiles may serve as realistic organizational previews for prospective employees, enabling them to better self-select themselves for preferred organizational cultures (Sheridan 1992).

Measures of dispositional affect might identify those employees who would most benefit from morale-lifting interventions, although recent work finds that affective dispositions do not constrain the impact of job enrichment (Arvey, Bouchard, Segal, and Abraham 1989; Judge 1992). Beneficial treatments may do most to raise the morale of positively affective employees who currently dislike their jobs and to retain them because it is they who are prone to abandon dissatisfying work (Judge 1992, 1993). Judge and Locke (1993) recommended training employees to overcome dysfunctional thinking about their jobs and lives in general in order to increase their subjective well-being and job satisfaction (ultimately reducing job avoidance [Judge 1992]). Despite the claims of many dispositional researchers (Arvey et al. 1989; Staw, Bell, and Clausen 1986), affective states and dispositions are not immutable, as Neck (1992) impressively demonstrated.

In summary, there are various “robust” methods for controlling turnover:

Realistic job previews  
Job enrichment  
Protection of the workspace against overstimulation  
Reality-shock orientation  
Self-management coping strategies  
Leader-member exchange training  
Biographical predictors  
Personality selection and placement

More experimental tests of these methods are nonetheless warranted because only RJPs have been extensively tested using field experiments that randomly assign employees to different treatment conditions and monitor their impact on job tenure.

## PROMISING METHODS OF TURNOVER REDUCTION

In this chapter, we review some promising methods that might curb unwanted turnover. The empirical underpinnings for these interventions, unlike those described in Chapter 9, are more limited. Rather than experimental or quasi-experimental research, the efficacy of these approaches for reducing turnover is primarily corroborated by cross-sectional correlational studies, opinion surveys, or informal observations. The wealth of such supportive but weak evidence is impressive and suggests that these methods may be useful.

### COMPENSATION PRACTICES

Employers universally regard low or uncompetitive wages as a leading cause of turnover. To illustrate, partners in public accounting firms recounted in a statewide survey that dissatisfaction about pay is one of the principal reasons that their staff quits (Hom, Bracker, and Julian 1988). Indeed, the widespread presumption that pay induces loyalty to a firm underlies the customary salary surveys, which insure that current wages are competitive (Milkovich and Newman 1993). Sharing this view, employees often mention pay as being central to their quit decisions. Many exit surveys find that former employees often blame their resignations on poor salaries or fringe benefits (Donovan 1980; Huey and Hartley 1988; Sigardson 1982).

Notwithstanding such testimonials, scholars of turnover have, for several reasons, generally ignored compensation or downplayed its impact. For one, most turnover scholars received their professional training in sociology or psychology (rather than in economics or business) so their turnover models largely reflect prevailing motivational theories that view pay as being immaterial to the work force (see Mobley 1977). Prevailing motivational models emphasize intrinsic motivation, such as self-actualization, while holding that lower-order physiological and security needs are less salient in our prosperous modern society (Brief and Aldag 1989). Research has reinforced the neglect of pay, generally finding weak correlations between pay and resignations by individuals (Mobley 1982a).

New research has challenged the conventional presumptions about the unimportance of pay. Brief and Aldag (1989) reviewed studies showing that pay can satisfy higher-order needs, such as achievement needs, a contradiction of the myth that pay meets only lower-order needs. In the wake of the past recession and with relentless global competition, compensation

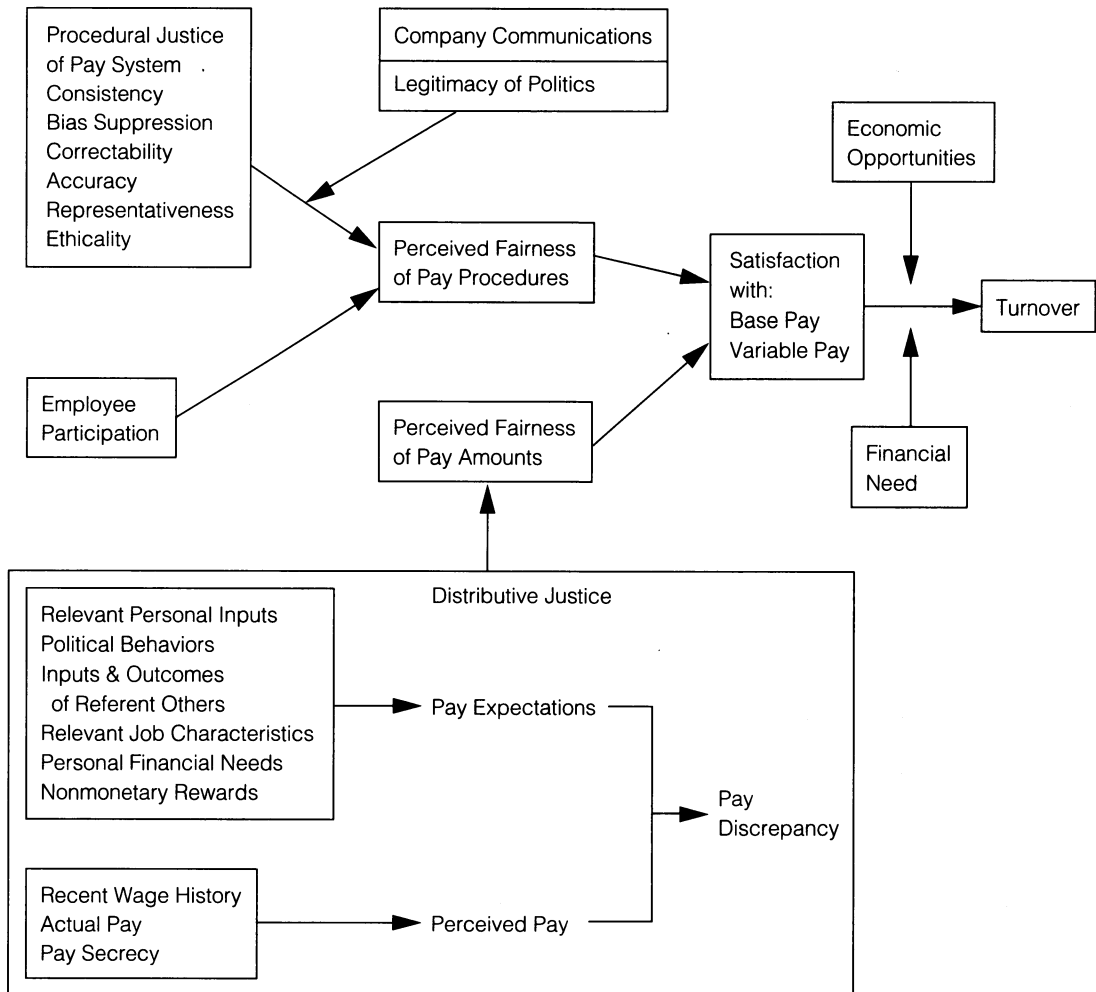
has become increasingly valued by Americans as their standard of living steadily declines (O'Reilly 1992; Smith 1992). Previous findings that people rank pay lower than they rank other attributes of a job understate extrinsic motivation, reflecting an artifact of social desirability (Lawler 1971). Policy-capturing studies—that lessen respondent tendency to present a favorable impression to investigators as one not driven by greed—reveal stronger pay preferences (Brief and Aldag 1989). Research on satisfaction with life and subjective well-being denotes income as a prime basis for happiness (Aldag and Brief 1989; Diener 1984; Judge 1992). Though not primarily underpinning happiness, work nonetheless renders economic benefits that enable people to enjoy more valued pursuits outside work, such as family activities and hobbies.

Methodological artifacts may have underestimated correlations between pay (and pay satisfaction) and individual quits (Moble, Griffeth, Hand, and Meglino 1979; Mobley 1982a; Motowidlo 1984; Weiner 1980). Turnover research generally examines one job or organization, restricting pay variance and hence correlations between pay and quitting (Steel and Griffeth 1989). Labor-economic studies on nationwide samples drawn from diverse firms and communities reveal that pay has bigger effects (Blakemore, Low, and Ormiston 1987; Shaw 1987). The routine measurement of base salary (Price and Mueller 1981, 1986) overlooks fringe benefits and incentive pay, rising expenditures in pay packages and growing concerns to employees (Fernandez 1986; Lewin 1991; Milkovich and Newman 1993). Turnover research often sampled secondary wage-earners and young employees who have fewer financial needs (Donovan 1980; Hom, Kinicki, and Domm 1989). It is the family breadwinners and midcareer adults—those bearing sizable financial obligations—who may most value pay and readily quit over poor incomes (Brief and Aldag 1989).

### **Model of Pay Effects on Turnover**

We propose a model, illustrated in Figure 10-1, summarizing prior conceptualizations (Heneman 1985; Lawler 1981; Miceli and Lane 1991). This framework explicates the ways in which pay (and pay practices) can affect turnover and suggests ways to promote retention. This model differentiates between attitudes toward variable and base pay and specifies common antecedents, although their effects on those attitudes are likely to vary (Heneman, Greenberger, and Strasser 1988; Miceli and Lane 1991; Scarpello, Huber, and Vandenberg 1988). For example, job responsibilities may influence expectations about salary, whereas effectiveness in performing those duties may affect expectations about pay increases (Milkovich and Newman 1993). (Like Miceli and Lane [1991], we posit another model for the effects of fringe benefits.) Satisfaction about pay should be derived from perceived fairness in pay practices (procedural justice) and pay amounts (distributive justice) (Folger and Greenberg 1985; Greenberg and McCarty 1990).





**Figure 10-1 Effects of Pay on Turnover**

We theorize that discrepancy between expected (base or variable) pay and the amount received determines the perception of distributive justice (Lawler 1971, 1981) because pay equity occurs when one gets what one deserves (Berkowitz, Fraser, Treasure, and Cochran 1987). In line with Miceli, Jung, Near, and Greenberger (1991), this model contends that overpayment evokes satisfaction, not guilt (Miceli and Lane 1991). Pay expectations depend, in turn, on personal job inputs (such as job performance) and the job characteristics (such as working conditions) that employees deem *relevant* contributions to the firm. Heneman, Greenberger, and Strasser (1988) and Miceli et al. (1991) found that the belief that pay is based on personal accomplishments enhances pay satisfaction and fairness. Organizations may

base pay on different criteria (or weight them differently [Greenberg and McCarty 1990]) from those that are important to employees, thereby confounding the employees' pay expectations.

This model recognizes political behaviors as potential pay bases, conforming to Gould and Penley's (1984) research showing that salaries increased most for managers who openly agreed with their superiors' opinions or who flattered them. Employees' own comparisons of the contributions of and inducements offered to others shape pay expectations (Heneman 1985; Lawler 1971; Miceli and Lane 1991). Countless studies revealed that the belief that others doing similar work (in or outside the firm) earn higher pay is demoralizing, as are perceptions that friends and relatives are getting higher wages (Miceli et al. 1991; Miceli and Lane 1991; Scholl, Cooper, and McKenna 1987; Sweeney, McFarlin, and Interrieden 1990).

This framework also suggests that expectations about pay stem from financial needs (such as family size and mortgage), which economic misery (inflation, for instance) exacerbates (Miceli and Lane 1991; Scholl, Cooper, and McKenna 1987). Three national surveys disclosed, after controlling pay, greater pay dissatisfaction when earnings do not meet current expenses (Sweeney, McFarlin, and Lane 1990). Men adhering to the traditional role of the breadwinning sex may feel more financial need (and expect higher pay) if their wives work or earn higher wages than they do themselves (Mirowsky 1987; Staines, Pottick, and Fudge 1986). Nonmonetary rewards (status symbols) may partially substitute for compensation and thus lower pay expectations (Lawler 1971). An opinion survey found that intrinsic rewards promote satisfaction about pay (Berkowitz et al. 1987), and a laboratory experiment showed that high-status job titles may compensate for extra job duties—in lieu of more pay—and thereby insure feelings of equity (Greenberg and Ornstein 1983).

This model further identifies sources of perceived earnings, pinpointing real wages as a prime cause (Lawler 1971; Miceli and Lane 1991). Actual base pay dictates the meaningfulness of a pay hike (Lawler 1981). Prior wage history—especially in recent jobs—also modifies perceived pay amounts because previous salaries set a frame of reference for judging the value of current wages (Hulin 1991; Smith, Kendall, and Hulin 1969). Two national surveys showed that higher past income made current pay seem small in comparison (Sweeney, McFarlin, and Lane 1990). (Earlier salaries may also inflate expected pay because formerly well-paid people become accustomed to costly lifestyles or internalize inflated views of their self-worth [Lawler 1971; Miceli and Lane 1991]).

Secrecy about pay policies may color pay perceptions (Lawler 1971), though this influence hinges on whether employees over or underestimate others' pay. Underestimating others' earnings raises one's own perceived pay (and pay satisfaction); overestimating lowers one's perceived pay (Miceli and Lane 1991). Economic troubles, such as spiraling inflation, shrink pay perceptions by eroding the employee's purchasing power (Heneman 1990).

**Table 10-1 Procedural Rules of Justice for Compensation**

<b>Rules of Justice</b>	<b>Setting Base Pay</b>	<b>Pay Increases</b>
Consistency Allocation procedures are consistent across persons and/or time	Apply same job evaluation to all jobs	Apply same performance standards to all subordinates
Bias-Suppression Minimize personal self-interest in allocation procedure	Safeguards against depressed evaluation of jobs dominated by women	Performance ratings are free from personal prejudice
Accuracy Base allocation on accurate information	Base job evaluation on accurate up-to-date job descriptions	Document performance ratings with behavioral examples
Correctability Opportunities to modify or reverse allocation decisions	Employee opportunity for job audits if jobs are placed in wrong pay grades	Employee opportunity to disagree with performance rating
Representativeness Allocation process represents concerns of all recipients	Job evaluation committee includes representatives from all functional areas	Multiple-rater appraisal comprises ratings from knowledgeable raters
Ethicality Allocations do not violate prevailing moral standards	Company complies with stated objective of equitable pay differentials	Maintain confidentiality of individual employees' performance ratings

Beyond distributive-justice bases, our conceptualization specifies that the rules of procedural justice underpin perceptions of fairness in pay practices (Folger and Greenberg 1985; Miceli and Lane 1991). Drawing from Leventhal (1980), those rules are defined in Table 10-1 and their applicability for setting base pay and pay raises illustrated. Folger and Konovsky (1989) found that fair appraisal procedures—among them, feedback and planning—improve satisfaction about pay raises, as did the perceived fairness of the raise. Miceli et al. (1991) found that federal managers regard their merit-pay plan as fair if their superiors follow formal performance-appraisal standards.

Employee participation in pay design also fosters perceptions of procedural fairness (Miceli and Lane 1991), an observation that is consistent with a “fair process effect,” wherein people feel committed to outcomes they chose (Greenberg and McCarty 1990). Laboratory experiments affirm this phenomenon, showing that subjects view reward outcomes—even bad outcomes—as more fair and satisfying whenever they believe that they have a say in allocation decisions (even though their influence is, experimentally, held immaterial) (Folger and Greenberg 1985). Field studies reveal that, when workers participate in pay designs, pay satisfaction is increased, and when

subordinates are given the opportunity to share their opinions about performance during appraisal interviews, their satisfaction with merit-pay decisions is enhanced (Folger and Konovsky 1989; Jenkins and Lawler 1981).

The present perspective further posits communications about pay practices and the legitimacy of politicking as moderating procedural justice. Without widespread communication, even fair practices cannot induce impressions of fairness (Miceli and Lane 1991), an observation that is borne out by studies from which it was found that open policies elicit satisfaction about pay (Greenberg and McCarty 1990; Miceli and Lane 1991). Explanations (or excuses) about wage setting may soften employees' hostility toward unpopular pay decisions (Greenberg and McCarty 1990). Besides this, personal values about the legitimacy of politics may decide whether or not violations of just allocation rules are offensive (Miceli and Lane 1991). If politics dominate pay decisions, employees morally opposed to political bases may regard procedural infractions (uneven standards, rating biases) as unfair.

Alternative economic opportunities and financial needs may moderate the effects pay attitudes have on turnover. Employees dissatisfied with their earnings quit more readily if they can obtain better pay elsewhere (Motowidlo 1983) or if they have urgent financial obligations (Brief and Aldag, 1989). Lawler (1971) argued that dissatisfaction about pay most induces quits if pay is personally important. Using this framework, we describe, in the following section, methods for improving attitudes toward pay (and ultimately, retention) and how they work.

## Pay Structures

***Traditional Pay Structures*** Our model suggests that pay structures affect turnover through base-pay satisfaction (Milkovich and Newman 1993). Companies usually set the base pay for jobs through job evaluation and salary surveys (Henderson 1989; Milkovich and Newman 1993). An internal compensation committee or a consulting firm designing and applying a job evaluation plan may differ from employees in rating and weighting compensable factors (pay bases). Nurses have long complained that prevailing job evaluation plans, such as the Hay Plan, undervalue nursing work because they neglect responsibility for human life (Comp Worth Study: "Nurses really underpaid", 1984). Given discrepant pay bases, job evaluation procedures might place a lower value on jobs than would the incumbents and set base salaries that fall below the incumbents' pay expectations. Pay dissatisfaction thus results because the pay is not commensurate with employee perceptions of the requirements and demands of the job.

Pay structure may induce exits if pay differentials between pay grades do not correspond to the incumbents' views of the relative grade differences in job worth (Miceli and Lane 1991). As Scholl, Cooper, and McKenna (1987) found, employees' comparisons with inputs and outcomes of others shape their pay satisfaction. Incumbents doing more demanding work may

feel underpaid if their pay is not *sufficiently* higher than that of those holding simpler jobs. Despite a similar (or lesser) internal job worth, pay for male-dominated jobs is often more than for female-dominated jobs, thereby inducing women's advocacy for comparable worth (Milkovich and Newman 1993). Similarly, labor shortages for some jobs may drive up hiring rates for new hires faster than the pay increases for seasoned employees in higher pay grades, compressing pay differentials (*ibid.*). To illustrate, Gomez-Mejia and Balkin (1987) found that senior business faculty became dissatisfied with their pay when incoming new Ph.D.s earned similar salaries because of a faculty shortage. Turbin and Rosse (1990) attributed the exodus of young engineers in high-technology firms (who lose a third of their recent graduates) to pay compression created by higher wages offered to new hires.

Common salary-survey practices may also disconfirm pay expectations. Often, organizations survey other companies competing in their product, service, or labor market (Belcher, Ferris, and O'Neill 1985; Milkovich and Newman 1993). This sampling design may omit firms considered by employees as pay referents and thus produce market wages that fall below employees' estimates. Employees may not use surveyed (benchmark) jobs for their external pay comparisons. For example, Sweeney, McFarlin, and Lane (1990) found that employees compare their incomes to those earned by incumbents in *different* jobs. Given discrepant market estimates, wage surveys may set wages that violate the employees' pay expectations. Customary means to develop pay structures may not yield entirely fair wages, thwarting employees' pay expectations and weakening loyalty to the company.

***Fair Pay Structures*** Traditional compensation management seeks distributive justice, though not necessarily meeting this goal. Present-day compensation theorists increasingly prescribe various ways to enhance procedural fairness (Milkovich and Newman 1993). Employees might write or update their job descriptions, which are then signed off by their superiors, as input for job evaluations (Gomez-Mejia, Page, and Tornow 1982). Employee representatives might serve on compensation committees to develop job evaluation plans and rate positions (*ibid.*; Milkovich and Newman 1993). Companies might solicit the input of employees on which firms to include in wage surveys (Milkovich and Newman 1993). Firms may grant employees the opportunity to appeal or review the job classifications (*ibid.*) Extensive communications to demystify compensation practices would enhance beliefs in their fairness (Greenberg and McCarty 1990).

***Skill-Based Pay*** New approaches for wage setting, known as skill-based or knowledge-based pay plans, may improve procedural and distributive justice (Lawler 1990; Ledford 1991). Unlike traditional job-based plans, these alternative pay structures base pay on what employees know rather than what they do (Milkovich and Newman 1993). These programs distribute pay for *depth* of knowledge in one professional or technical job (Northern Telecom [Leblanc 1991]) or for *breadth* of knowledge of several production jobs, cor-

**Table 10-2 Job Based and Knowledge-Based Pay.**  
**(G. Milkovich and J. Newman. *Compensation* (3rd. Edition).  
 Homewood, IL: Irwin: p. 86.)**

	<b>Job-Based Pay</b>	<b>Knowledge-Based Pay</b>
Pay Structure	Higher pay for jobs having more demands and responsibilities	Higher pay for jobs requiring higher or different skills
Salary Progression	Job promotion	Skill acquisition
Valuation Procedure	Job evaluation	Skill certification
Benefits	Pay based on value of work done	Flexibility in scheduling reduced work force
Disadvantages	Inflexibility, Bureaucracy	Training costs, Topping out on pay

responding to different stages in a continuous-process technology (General Mills [Ledford and Bergel 1991]) or manufacturing assembly (Honeywell [Ledford, Tyler, and Dixey 1991]). In Table 10-2, a comparison between knowledge-based and traditional job-based pay is shown.

Preliminary studies (Lawler 1990; Ledford 1991; Milkovich and Newman 1993) suggest higher distributive justice in knowledge-based pay plans because employees earn bigger paychecks (A more flexible, leaner work force also permits higher earnings per employee.) These programs accelerate salary growth because employees can progress as fast as they can master new skills or receive additional training. Traditional plans usually reserve major pay hikes for promotions, which hinge on available job openings over which the employees lack control. Skill-based pay also enhances perception of procedural fairness because salary increases follow clear and possibly, more acceptable criteria: the acquisition of skills as judged by supervisors, colleagues, or special committees (Ledford 1991). Job-based pay assigns salaries on criteria (compensation factors) and evaluations (judgments by anonymous compensation committees) that are usually obscure to employees (Miceli and Lane 1991). Skill-based pay plans provide significant training resources to employees and require experienced members to train others (Lawler 1990; Ledford, Tyler, and Dixey 1991). The intrinsic rewards derived from peer training and job rotation may further promote pay satisfaction (Berkowitz et al. 1987). Some plans pay production workers to learn administrative tasks, thus providing opportunities for autonomy and self-management (Lawler 1990). Many skill-based plans pay competitive market wages and may offer merit pay (Ledford 1990).

Skill-based pay may also directly increase the loyalty of the work force. By broadening their skills, workers can transfer to other jobs in which there is more work rather than face layoffs, during business downturns (Milkovich and Newman 1993). Such greater job security reinforces inclinations to stay (Davy, Kinicki, and Scheck 1991). Multiskilled employees may stay in the jobs

they have because they cannot find comparable pay in other firms that offer separate, and lower, wages for distinct jobs (Lawler 1990). Though sparse, empirical studies do suggest that pay-for-knowledge systems can enhance morale and retention. Ledford and Bergel (1991) found more satisfaction with pay and pay administration in the General Mills plan, and Leblanc (1991) reported that the Northern Telecom plan halved voluntary turnover. A study of twenty skill-based plans found higher levels of commitment and satisfaction among workers (Milkovich and Newman 1993).

### Variable Pay

Variable pay—tying financial rewards to performance of the job or of the firm—can potentially reduce quit by effective performers (Dalton, Todor, and Krackhardt 1982; Lawler 1990; Mobley 1982a). Research studies establish that contingency pay schemes bolster functional quits, motivating marginal performers to quit more readily (Bishop 1990; Williams and Livingstone 1994; Zenger 1992). Other research finds that group incentives, delivering higher pay to most employees, can reduce overall quit rates (Blakemore, Low, and Ormiston 1987; Wilson and Peel 1991).

Nonetheless, merit-pay programs—the most common form of allocating variable pay—often do not increase productivity, and hence, may not deter dysfunctional quits (Gomez-Mejia and Balkin 1992a; Lawler 1990; Meyer 1991; Schwab 1991). Heneman's review (1990) of twenty-two field studies found that merit-pay programs produce few or inconsistent gains in performance. The chief reason behind their general ineffectiveness is a reliance on performance judgments, which are often biased or defective (DeVries, Morrison, Shullman, and Gerlach 1981; Lawler 1990). As a result, employees do not hold "line of sight" beliefs that effort translates into monetary rewards (Lawler 1981). Without such perceptions, merit-pay programs cannot lower dysfunctional turnover because effective performers do not expect financial rewards for their superior accomplishments and thus quit (Lawler 1971). Illustrating this weakness, the Wyatt Company found, in a broad survey, that only 27 percent of the work force felt rewarded for doing a better job (Bleakley 1993).

Drawing from research on employees' reactions to appraisal practices, we review in the next section some ways to improve merit-pay programs (Bernardin and Beatty 1984; Murphy and Cleveland 1991). Through more valid and credible appraisals, their improvement would increase procedural and distributive justice, enhancing the retention of superior performers.

**Appraisal Reviews** Early survey research found higher satisfaction among employees who express their own views and discuss plans for performance improvements during appraisal sessions (Dipboye and Pontbriand 1981; Landy, Barnes, and Murphy 1978). A more recent survey on procedural fairness reports that employees' ability to challenge ratings, employees' input

- Performance Measurement
  - Consistent performance standards
  - Relevant performance dimensions
  - Behavioral performance dimensions
  - Subordinates' views solicited
  - Frequent supervisory observations
  - Supervisory knowledge of job requirements
  - Performance obstacles accounted for
- Performance Feedback
  - Frequent feedback
  - Specific feedback for behavioral change
  - Rationale for performance rating
- Performance Planning
  - Specific and clear goals set
  - Plans for performance improvements discussed
  - Difficulties about job duties resolved
  - Periodic review of goal progress
- Recourse
  - Expressions about performance rating permitted
  - Opportunity to appeal performance rating provided

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**Figure 10-2 Credible and Fair Appraisal Interview Practices**

before the final ratings are determined, superiors' familiarity with employees' work, and the consistent application of standards underpin employees' impressions of fair appraisals (Greenberg 1986). Folger and Konovsky (1989) found that perceived feedback, planning, observation, and recourse during appraisal sessions increased satisfaction with pay raises and commitment to the company.

Experimental studies on performance appraisal corroborated these survey findings. Ivancevich (1982; Ivancevich and Smith 1981) showed that managerial training in goal setting and feedback delivery enhanced the reactions of subordinates, including their perceptions of the fairness of the appraisal. He also found (1980) that engineers evaluated by a behaviorally anchored rating system—with more relevant performance standards—had better perceptions of the appraisal's fairness than had those evaluated by a trait-based rating system. These credible and fair appraisal interview practices are summarized in Figure 10-2.

**Variable Pay Allocation** Heneman (1990) summarized reward distribution practices that promote line-of-sight views. Predictably, contingent-pay schemes that objectively tie pay to performance foster those beliefs. Meaningful pay increases for high performance and sufficient variability of pay hikes also reinforce line-of-sight perceptions. Yet many merit-pay



schemes customarily restrict raises to between three and five performance categories and cluster 80 percent of the yearly salary increases to within 2 percent of the mean increase (Zenger 1992). In addition, merit guide charts usually tie pay hikes to performance ratings *and* salary position in the pay grade (Lawler 1990; Milkovich and Newman 1993). Controlling expenses, such salary guidelines restrict pay raises for those earning high salaries, undermining their motivation (Heneman 1990). Some firms avoid demotivation by granting one-time merit bonuses to employees whose salaries are near the top of their pay range.

Moreover, merit bonuses reinforce the perceived instrumentality of performance for pay more than do merit raises, which are permanently folded into base salaries (Lawler 1990). Instead of becoming annuities, one-time bonuses must be earned again by meritorious performance every year (Heneman 1990). The lump-sum distribution of a merit raise is more likely to sustain belief in instrumentality of performance for incentives than is burying the raise across several pay checks in the coming year (*ibid.*; Lawler 1981). Merit-pay programs must also pay competitive salaries to sustain line-of-sight perceptions (Heneman 1990).

Aside from the issue of procedural justice, fair and valid performance appraisals bolster pay-for-performance perceptions (*ibid.*; Lawler 1990). Written performance standards, the adherence to performance standards, and reliable measures of performance boost line-of-sight cognitions (Heneman 1990). Open pay policies may develop perceptions of performance instrumentality by communicating the criteria for merit pay (Lawler 1981). Such policies may, however, inhibit superiors from granting varying raises to avoid challenges to their decisions on the matter (*ibid.*; Zenger 1992). Perhaps, communications about the range and size of merit awards and the decision-making procedure instead of public identification of the award recipients may maintain line-of-sight perceptions without incurring the costs of pay justifications (Lawler 1981). If such features were built into merit-pay programs, they might encourage functional quits while discouraging dysfunctional quits.

**Key Contributors** High-technology and military organizations pioneered special financial incentives to retain personnel (Cascio 1990). The armed services offer reenlistment bonuses and use enlistment bonuses and educational benefits to lure new recruits (Hand, Griffeth, and Mobley 1978; Lakhani 1988; Gilroy, Phillips, and Blair 1990). High-tech firms award various incentives to technical employees ("key contributors"), whose special skills or proprietary knowledge contribute to the firm's performance (Cascio 1990; Gomez-Mejia, Balkin, and Milkovich 1990). Many high-tech firms give large cash awards for outstanding scientific achievements. To cultivate a sense of ownership, small private firms grant stocks to their technical professionals; public corporations award unit performance shares or phantom stocks (Cascio 1990). Scientists and engineers may receive special budgets for equipment purchases or conference travel. Some high-tech firms fund their key contributors' new ventures (Barnatham, Einhorn, and Nakarmi 1992; Gomez-Mejia, Balkin, and Milkovich 1990). Such intrapre-

neurship satisfies their intellectual and entrepreneurial pursuits while discouraging their exits.

**Group Incentive Plans** Increasingly, incentive pay is based on company performance (Gomez-Mejia and Balkin, 1992a; Milkovich and Newman 1993), a bonus being based on controllable costs or, units of output (efficiency plans), or the firm's profitability (profit-sharing plans) (Lawler 1990). Many reviews attest to the productivity gains resulting from group incentive plans, though methodological problems temper this conclusion (Blinder 1989; Bullock and Lawler 1984; Cascio 1990; Lawler 1990; Welbourne and Gomez-Mejia 1988; White 1979). Using a large sample and statistical controls, Gerhart and Milkovich (1990) nevertheless confirmed that firms offering long-term incentives to managers realized higher returns on investments.

Group incentive schemes may also improve retention by increasing pay satisfaction. In particular, efficiency-based plans most promote perceptions of the procedural fairness of pay through their emphasis on the employees' involvement (Irrgang 1972; Lawler 1990; Lincoln 1951; White 1979). The Scanlon plan uses a screening committee, comprising labor and top management, to review workers' suggestions for plantwide efficiency improvements and to administer the bonus plan (Frost 1978; Lesieur 1958). Group incentive plans may also heighten perceptions of distributive justice if they deliver sizable bonuses, as the Lincoln Electric Company does (Balwin 1982). Supporting our reasoning, Wilson and Peel (1991) found that profit sharing in British firms reduced overall voluntary quits.

Group incentive plans may reduce turnover by providing greater job security (Gomez-Mejia and Balkin 1992a; Irrgang 1972). By reducing fixed labor costs (base salary and indirect benefit costs), organizations, rather than lay off personnel, can withhold incentive pay during economic recessions (Lawler 1990). Higher job security, in turn, improves loyalty to the company (Davy, Kinicki, and Scheck 1991; Greenhalgh and Rosenblatt 1984). A Rutgers study concluded that companies whose profit sharing consisted of cash payouts had one-third fewer layoffs during economic downturns than did competitors in the same industry (Cascio 1990).

**Stock Ownership** Stock ownership—through stock grants, such as employee stock-ownership plans [ESOPs], or stock purchase plans—may foster company loyalty by several mechanisms (Klein 1987). ESOP shares (which vest over time) and stock options (or restricted stock) possibly prolong job tenure because employees must remain employed for a certain time to receive their fully vested ESOP shares or to exercise the options (ibid.; Lawler 1990). Stock ownership may reduce unfriendly takeovers by outsiders, because employees can vote on who runs the firm, and so prevent the downsizing or dismantling that often follows takeovers (Faltermayer 1992). Heightened job security then builds loyalty to the firm (Davy, Kinicki, and Scheck 1991). The receipt of stock options granted for performance may discourage superior performers from leaving, although stock prices depend

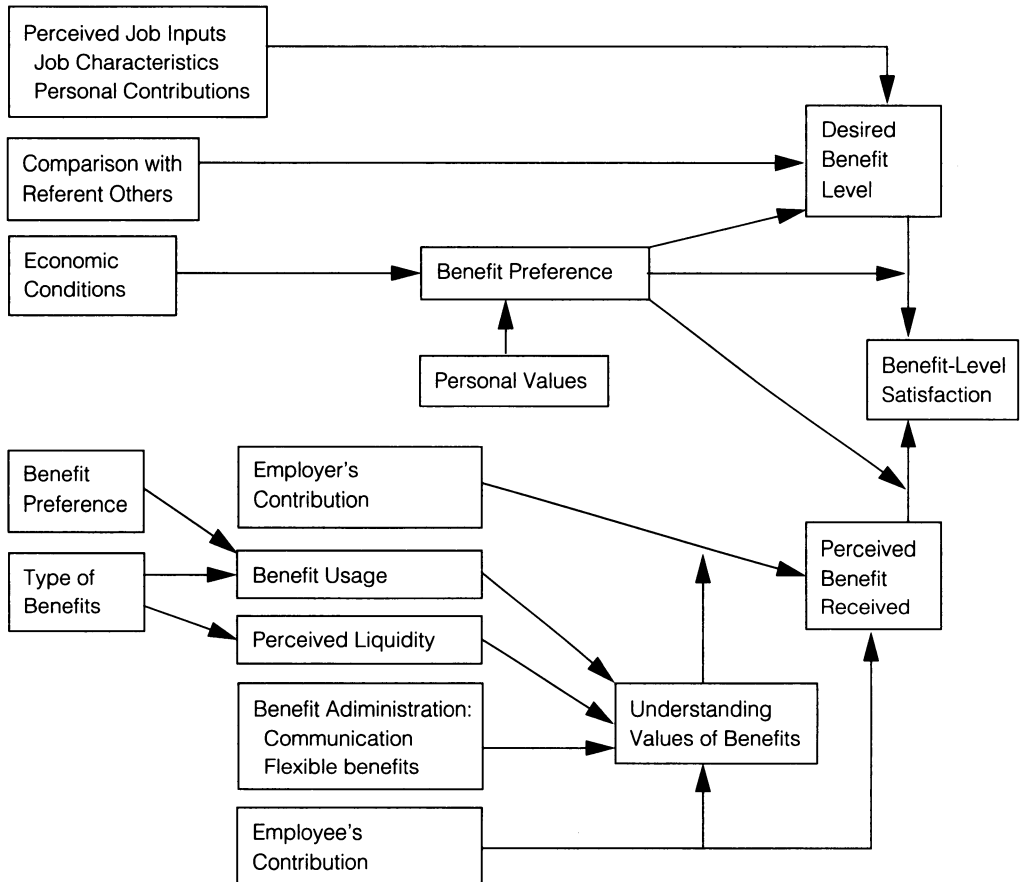
more on vagaries of the financial market than on the performance of individuals (Lawler 1990). Klein (1987) found that employees who were receiving large ESOP contributions felt more committed to their firms, and Wilson and Peel (1991) showed that firms that offered stock ownership to their employees endured fewer quits.

**Research Needs** Though current research affirms that merit-pay schemes reduce dysfunctional quits, the identification of which features help to bond superior performers to organizations awaits further inquiry (Williams and Livingstone 1994; Zenger 1992). In particular, we suggest more research into whether pay practices promoting line-of-sight beliefs also reduce dysfunctional quits. Essentially, do effective merit pay programs that motivate and reward superior performers also sustain their attachment to the job? Further inquiry must also consider the relative efficacy of various pay-for-performance prescriptions for reducing dysfunctional quits. Some prescriptions, such as an open pay policy and differential merit pay, may work at cross-purposes. Similarly, we welcome more direct research to assess the impact of group incentive plans on turnover and verify the routes (procedural justice, for instance) through which they decrease turnover. Beyond testimonials, the efficacy of incentives for key contributors and stock ownership for retention merits more scholarly attention. Except for military studies, anecdotal evidence primarily suggests that special incentives can retain technical personnel in high-tech firms (Cascio 1990; Turbin and Rosse 1990). More organizational-level research on the effects of pay on quit rates (see Gomez-Mejia 1992; Hom 1992) would provide the most relevant data for wholesale interventions by the firm (Hom, Gomez-Mejia, and Grabke 1993).

### **Fringe Benefits**

Employers expend considerable funds—38 percent of payroll costs in 1990—to provide fringe benefits to improve morale, attraction, and retention in the work force (Milkovich and Newman 1993). With few exceptions (Hulin, Roznowski, and Hachiya 1985), turnover researchers overlooked the role of fringe benefits in retaining employees. Although Milkovich and Newman concluded that “there is at best only anecdotal evidence that employee benefits are cost justified” (1993, p. 409), prevalent reports by journalists and opinion polls forcefully show that benefits do sustain loyalty to a firm. According to the popular press, fears that pensions will be reduced discourage early retirement (Cahan 1986; Stricharchuk 1987) and the feared loss of health benefits restrains employees from quitting (Clements 1993; Lewis 1991). Many opinion polls and surveys chronicle the widespread premium the American populace places on fringe benefits, especially for health coverage (Clements 1993; Dwyer and Garland 1991).

**Theoretical Framework** In this section, we describe a model derived from Miceli and Lane’s framework (1991) to explain the origins of satisfaction



**Figure 10-3** (M. Miceli and M. C. Lane. “Antecedents of pay satisfaction: A review and extension.” In G. Ferris and K. Rowland (Eds.), *Research in Personnel and Human Resources Management*, (1991) Vol. 9.)

about benefits and how benefits can sustain loyalty (see Figure 10-3). Following Lawler (1971), in this model, we contend that discrepancy between desired and perceived benefit levels underpins satisfaction about benefits. In turn, preferences for benefits moderate this impact; desired but unmet benefit levels create despair only if employees value that benefit (Locke 1976). We further posit various determinants of desired benefit levels, among them perceived job inputs, such as personal contributions and doing disagreeable or difficult jobs. For example, many firms tie the levels of some benefits—typically, pensions and vacation time—to length of employment (Milkovich and Newman 1993). Employees may compare their benefits to those of others and expect similar levels (Miceli and Lane 1991). Desired benefit levels also

derive from benefit preferences, which in turn are shaped by economic circumstances and personal traits (*ibid.*). Unemployment may raise the demand for more unemployment insurance; married employees, unlike single employees, may want more health coverage for their dependents.

The formulation likewise specifies various causes of perceived amount of benefit received, positing that the firm's contribution represents the key antecedent. Dreher, Ash, and Bretz (1988) found that benefit coverage modestly increased benefit satisfaction, and an understanding of the benefits strengthened this effect. This model also submits that employees who understand the benefit scheme are more likely to recognize (if not better appreciate) contributions from the employer. The workers' own contributions to the benefit lower the perceived benefit levels (Miceli and Lane 1991; Milkovich and Newman 1993, Dreher, Ash, and Bretz 1988). All the same, employees who contribute to the costs of the benefit may understand it better and appreciate the company's contribution (Wilson, Northcraft, and Neale 1985).

Certain administrative practices may improve understanding of the benefits (Miceli and Lane 1991). Effective communication programs, such as small group meetings and personalized benefit statements will clarify their values and expand awareness of the firm's contribution (Milkovich and Newman 1993). Indeed, communication about benefits is essential in promoting satisfaction about them because most employees are ignorant about or underestimate their benefits (Wilson, Northcraft, and Neale 1985). Flexible benefit plans—providing the employee with a choice of benefits—may enhance knowledge about them and increase the level of desired benefits (Miceli and Lane 1991). Barber, Dunham, and Formisano (1992) found that the introduction of a cafeteria benefit plan raised satisfaction with and understanding of the benefits.

The frequency with which benefits are used (due to personal preference) should enhance awareness of the value of the benefits. Understanding of benefits depends on the type because some benefits are used more often or are more "liquid" than others (Miceli and Lane 1991). Frequently used benefits, such as parking, are more appreciated than the ones used less, such as life insurance, as illustrated in the sick-leave abuser's confession that "it is not a benefit if I don't use it" (*ibid.*, p. 296). Liquid benefits, such as vacation days, are more easily translated into a cash value than are others; such translation makes their value more readily understood than that of nonliquid benefits.

***Reducing Turnover*** The model suggests that benefit coverage can inhibit employees from leaving (Barber, Dunham, and Formisano 1992; Ippolito 1991; Williams and Dreher 1992). Dreher, Ash, and Bretz (1988) found that broad coverage elevates satisfaction about benefits, which according to Hulin, Roznowski, and Hachiya (1985) may enhance job stability. Williams and Dreher (1992) showed that banks that provide more generous fringe

benefits attract more job applicants. More directly, labor economists find that pension coverage and accumulation deter quits (Ippolito 1991; Mitchell 1983).

The tying of benefit levels, such as pension and vacation time, to tenure on the job may dissuade employees from leaving (Milkovich and Newman 1993). While acknowledging that premature quits (before full vesting) incur loss of pensions, scholars of turnover (and employees) may not realize that exits even after full vesting can impose sizable losses in pensions, which grow with tenure (Ippolito 1991). Common defined-benefits plans distribute smaller pensions to vested employees who quit before retirement age because pension formulas peg benefits to the level of their most recent wages—which freezes at the exit date and loses its purchasing power over time—and years of service (benefits are reduced as service declines) (Milkovich and Newman 1993). Amazingly, job-hoppers who fully vest in several pension plans earn less in pension benefits than do employees spending their entire career in one firm (*ibid.*). Documenting such potential costs, Ippolito (1991) calculated pension capital losses for 6,416 employees in 109 pension plans and found that if the pension subject to forfeiture is sizable, tenure will be prolonged. His finding may underlie one of the most durable facts about turnover: Quits decline with increasing seniority in a firm (Mobley 1982a).

This framework further suggests that some fringe benefits may promote satisfaction and retention more than others (Miceli and Lane 1991). Opinion polls identify health coverage as the most prized benefit (Clements 1993), but the preferences of employees for this and other benefits will surely vary with personal values (risk aversion, leisure demands), family responsibilities, and age (Miceli and Lane 1991; Milkovich and Newman 1993). Williams and Dreher (1992) found that banks providing more paid time off more readily filled vacant teller positions because this mostly female work force valued time off to meet their parental duties. To provide valued benefits, firms must identify the employees' preferences, perhaps by using surveys for diagnosis (Barber, Dunham, and Formisano 1992; Milkovich and Newman 1993).

According to our thinking, benefit coverage, however generous, fosters satisfaction and retention only if employees understand and appreciate their benefits (Dreher, Ash, and Bretz 1988; Miceli and Lane 1991). As noted above, most employees do not know or they underestimate their fringe benefits (Wilson, Northcraft, and Neale 1985), and such ignorance or misunderstanding can offset the benefit coverage (Dreher, Ash, and Bretz 1988). Effective communication programs—notably, small group meetings and personalized benefit statements—can foster satisfaction about benefits by informing employees of those that are available and the costs to the firm to procure the benefits (Barber, Dunham, and Formisano 1992; Miceli and Lane 1991; Wilson, Northcraft, and Neale 1985).

This model also suggests that employers must limit benefit expenses imposed on employees, who increasingly share the cost of coverage (Dreher,

Ash, and Bretz 1988; Milkovich and Newman 1993). Dreher, Ash, and Bretz (1988) showed that costs paid by employees, such as high premiums and deductibles, diminish satisfaction with the benefit. Conversely, contributions from workers would expand their understanding of the benefits and improve benefit coverage (Wilson, Northcraft, and Neale 1985). Flexible benefit plans may improve knowledge about benefits and the attainment of desired benefits (Barber, Dunham, and Formisano 1992; Miceli and Lane 1991). Williams and Dreher (1992) found that flexible benefits reduced the length of time in which bank-teller positions were vacant, implying that flexible benefits can keep tellers on the job.

In summary, future research must validate the practical implications of this benefit-satisfaction model for curbing turnover. The state of knowledge about the effects of benefits would expand with more investigations into how specific attributes of benefit packages (rather than simple global satisfaction [Heneman 1985]) affect the decisions of individuals to quit. We require more organizational-level studies describing how benefit packages affect quit rates (Dreher, Ash, and Bretz 1988; Hom 1992). Researchers might survey compensation directors (Gomez-Mejia 1992) or access data about firms gathered by compensation consulting firms (Gerhart and Milkovich 1990) which may provide more complete and accurate descriptions about benefit packages than those obtained from individual employees.

### Compensation Strategies

The emerging discipline of compensation strategy may suggest new avenues by which compensation can reduce organizational quit rates (Gomez-Mejia and Balkin 1992a; Milkovich and Newman 1993). This perspective defines compensation strategy as the “deliberate utilization of the pay system as an essential integrating mechanism through which the efforts of various subunits and individuals are directed toward the achievement of an organization’s strategic objectives” (Gomez-Mejia and Balkin 1992a, p. 35). This conceptualization presumes that the effective implementation of corporate strategy depends on the *appropriate* pay strategy, implying that no single pay strategy is best for all organizations.

For a preliminary test, Hom (1992) investigated the way in which pay strategy affects quit rates. The directors of mental health agencies completed a survey assessing, not only compensation levels, but also decisions and practices about pay—including administrative procedures and criteria for pay increases—that support business strategy (see Gomez-Mejia and Balkin 1992a). Then, Hom correlated the survey responses with overall quit rates among the agencies. The pay strategies that promoted retention of the work force are shown in Table 10-3. Surprisingly, an emphasis on performance incentives rather than on base pay or fringe benefits lowered turnover rates. Pay and benefits that were generous compared with prevailing rates decreased exit rates. Compensation procedures that provide employees with

**Table 10-3 Compensation Practices and Turnover Rates Among  
Mental Health Agencies. (P. W. Hom (1992).  
Turnover costs among mental health professionals.  
College of Business, Arizona State University, Tempe, Ariz.: 102.)**

<b>Compensation Practices</b>	<b>Definition of Compensation Practices</b>	<b>Correlation with Turnover Rates</b>
Pay Mix	Relative emphasis on pay and benefits in total pay package	-.40
Pay Incentives	Emphasis on incentives in employees' earnings	-.60
Risk-Sharing	Employees' earnings vary with success of the organization	-.35
Internal Pay Equity	Pay system emphasizes internal pay equity	-.08
Pay Secrecy	Pay policies and practices are not openly disclosed	.14
Performance-Based Rewards	Job performance rather than job seniority is rewarded	-.33
Pay Centralization	Compensation system is centralized	-.21
Executive Perks	Availability of "perks" (special rewards) to a few employees—i.e., top managers	-.20
Market Competitiveness	Pay and benefits exceed those offered by other employers	-.24
Participative Design	Employees have a say in pay policies	-.29
Job-Based Pay	Pay rates reflect job duties and responsibilities rather than job incumbent's ability or skills	-.25
Long-Term Orientation	Pay system rewards employees for long-term accomplishments	.09
Frequency of Reward	Pay system offers frequent incentives or bonuses	.10
Intrinsic Rewards	Company emphasizes intrinsic rewards, e.g., job enrichment	.16
Bureaucratic Pay Policies	Compensation structure is regimented, with carefully defined procedures	-.18

a voice in pay policies and wages that are based on the responsibilities of the job lessened turnover rates, as did centralized pay policies and the availability of executive perks. Compensation strategy research represents a new paradigm for studying the effects of pay on the overall termination rates of companies and identifying attributes of a pay system, besides the amount of compensation, that reduce quits. Future research should replicate Hom's (1992) exploration with other industries because effective pay strategies that



reinforce loyalty are likely to vary across different industries and with different corporate strategies.

## DEMOGRAPHIC DIVERSITY

Diversity in race, gender, ethnicity, and nationality increasingly characterizes the modern American work force (Cox 1991). This demographic and cultural heterogeneity will accelerate as women and nonwhite men will constitute 85 percent of the net addition to the labor force between now and the year 2000 (Cox, Lobel, and McLeod 1991; "Pay Equity Makes Good" 1990). Given such demographic trends and a shrinking labor supply, employers will face stiff competition to attract and retain women and members of minorities ("One Company's Approach" 1991; Fisher 1992; "Promoting Women to Upper" 1990). Despite the changing composition of labor, turnover researchers have rarely examined quits among minorities and women or the reason for their quitting (Nkomo 1992). Myriad case studies and journalistic accounts report elevated levels of turnover among minorities and women (Gleckman, Smart, Dwyer, Segal, and Weber 1991; Schwartz 1989). National statistics indicate that Afro-Americans quit 40 percent more frequently than whites do and statistics gathered by Corning Glass and Monsanto show that female professionals leave at twice the rate shown by men (Cox and Blake 1991; Fisher 1992). According to exit surveys of minority and female leavers (James 1988; Schwartz 1989), that exodus may arise from discrimination—real or imagined.

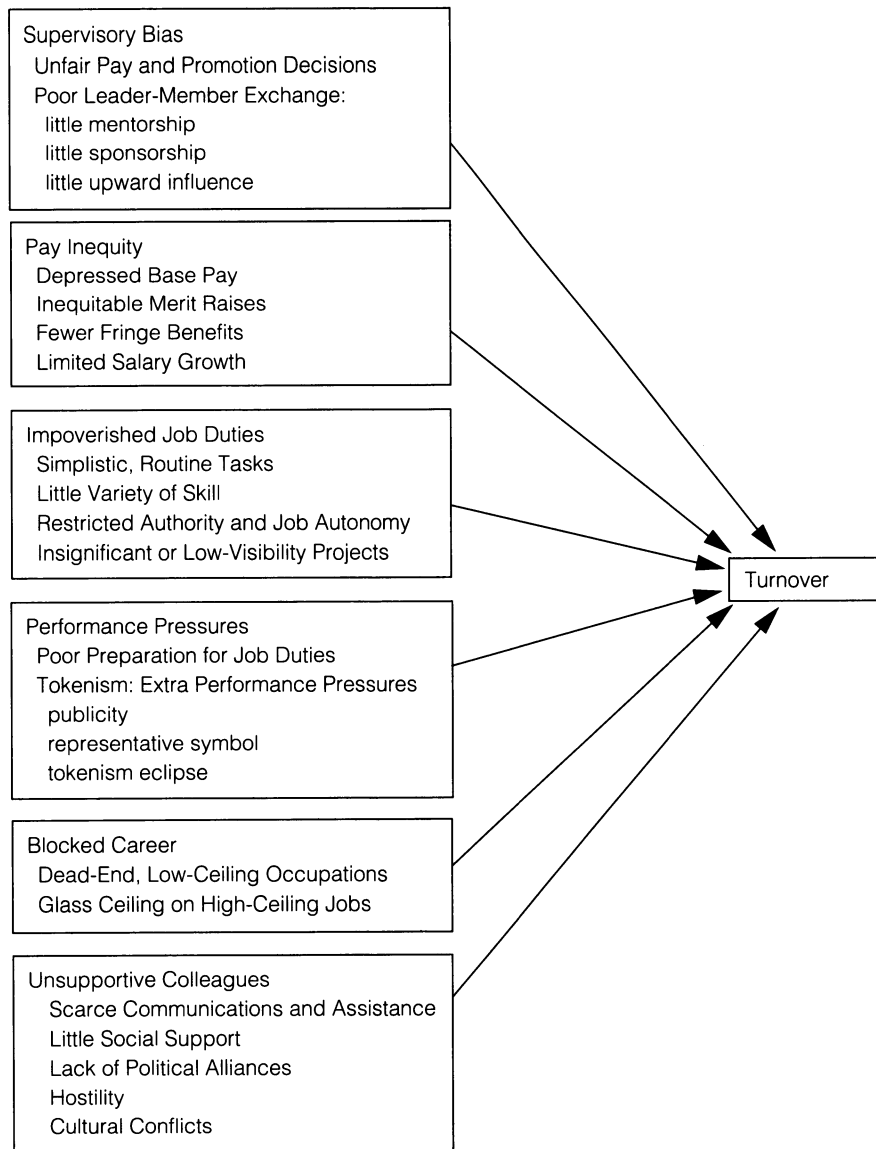
Although the issue is beyond the scope of this book, the well-known racial and gender disparities in pay and rates of promotion do not automatically signal discrimination (Becker 1991; Milkovich and Newman 1993). For one, other factors, such as differences in industry or human capital ("Black College Graduates" 1991; Lobel and St. Clair 1992; Milkovich and Newman 1993), may account for women and minorities earning lower wages or occupying fewer managerial and professional jobs (Morrison and Von Glinow 1990). Even after controlling extraneous factors, statistical findings of unequal outcomes still do not clearly implicate discrimination (Gerhart and Rynes 1991; "Pay Equity Makes Good" 1990; Morrison and Von Glinow 1990). Quite often, aggregate economic statistics poorly proxy or omit nondiscriminatory causes, only partly adjusting those confounds (Brimelow and Spencer 1993; Milkovich and Newman 1993).

Though no longer a matter of dispute, the *extent* of discrimination continues to spur debate (Gerhart and Milkovich 1989). Some pay studies conclude that sexism minimally explains pay gaps, such as young, college-educated women earning 10 percent less pay than their male counterparts (Koretz 1990); others incriminate gender bias as a chief cause, underlying between one-half and one-quarter of pay disparities for women and nonwhites ("Pay Equity Makes Good" 1990). In a rigorous test, after holding constant human capital attributes, family power (the percentage of

the family income earned), willingness to relocate, and industry, Stroh, Brett, and Reilly (1992) recently estimated that sex explained a 2 percent unique variance in salary growth among managers in twenty *Fortune*-500 firms. Female managers following the male model of career advancement (college graduation, stable work patterns, employment in higher-paying industries, job relocation, providing the main financial support for the family) still lagged behind male managers in salary. Perhaps the safest conclusion that can be deduced from existing data is that gender and racial gaps reflect both discriminatory and nondiscriminatory causes. With this caveat, we next discuss factors stimulating turnover among minorities and women, recognizing that perceptions of discrimination—whether rooted in reality or not—govern termination decisions. Those potential sources of discrimination are summarized in Figure 10-4.

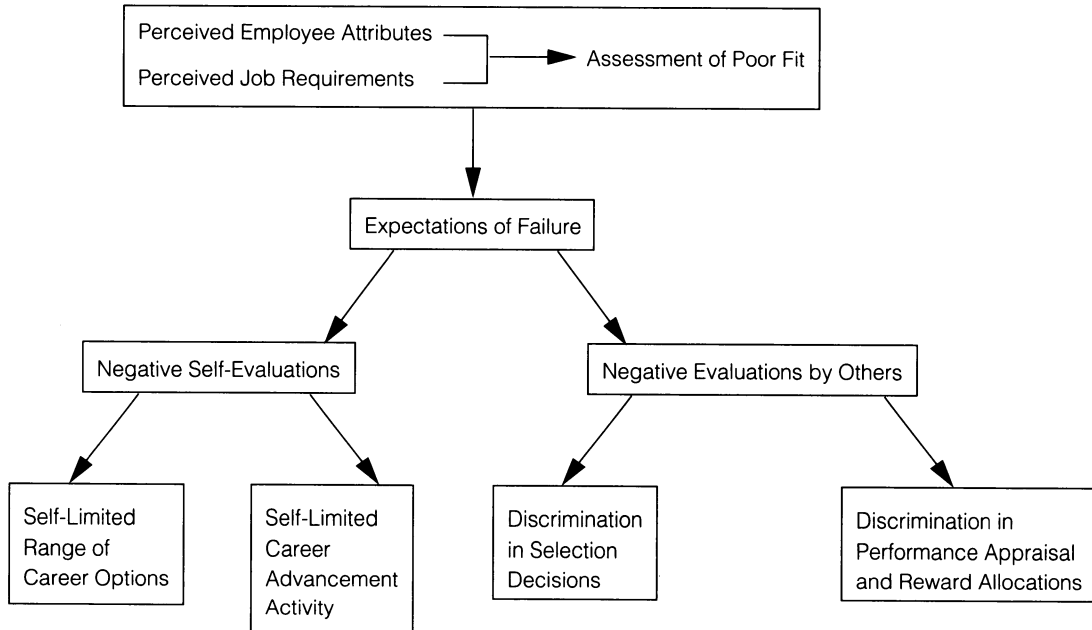
***Supervisor's Bias*** The business press pinpoints poor or indifferent treatment from supervisors as prompting minorities and women to quit. Minority leavers describe their supervision as arbitrary and unfair (Gleckman et al. 1991), and 81 percent of surveyed CEOs of *Fortune* 1000 firms believed that stereotyping blocked career advancement for women (“Upward Mobility for Women” 1991). More revealing, organizational studies uncovered evidence that supervisors generally deflate the performance evaluations of minorities and women (Sackett, DuBois, and Noe 1991) and that managers underestimate the accomplishments of their black subordinates, although they favored women over men (Tsui and O'Reilly 1989).

Heilman's “lack of fit” model (1983) parsimoniously explains bias among supervisors. A perceived lack of fit between the requirements of powerful, high-status, high-income jobs and the personal attributes of minorities and women underlies their exclusion from such positions and their deficient performance appraisals (see Figure 10-5). Superiors consider that minorities and women have traits that are stereotypical of their groups and that deviate from the perceived requirements of professional or managerial jobs. Asians or women may be overlooked for management because they are seen as representatives of self-effacing or docile groups that cannot meet the responsibilities of leadership (Mandel and Farrell 1992; Watanabe 1973). A Taiwanese engineer who left Silicon Valley to open up a company overseas recounted how, “No matter how hard I worked, I always remained a technical contributor” (Barnathan, Einhorn, and Nakarmi 1992). Indeed, the token representation of minorities or women in managerial ranks exacerbates the lack-of-fit stereotyping (Kantor 1977; Stockdale 1993). Dominants, that is, white males, more readily attribute stereotyped group attributes to token representatives because there are so few of them—too few to provide enough examples to contradict generalizations. Documenting the effects of tokenism, Sackett, DuBois, and Noe (1991) found that women in work groups in which less than 20 percent of the members are female receive inferior performance appraisals.



**Figure 10-4 Potential Causes of Turnover among Minorities and Women.**

Superiors may attribute effective performance by managerial or professional women or minorities to luck rather than ability because their success violates preexisting expectations (Heilman 1983). Superiors may act (or not act) toward minorities or women in ways that undermine their performance, thereby realizing the initial expectations of lack of fit (a self-fulfilling prophecy). They may meet infrequently with those subordinates and inade-



**Figure 10-5 Heilman's Lack of Fit Model.** (M. E. Heilman, "Sex bias in work settings: The Lack of Fit model," *Research in Organizational Behavior*, 5 (1983): 281.)

quately communicate the role expectations that would direct their subordinates toward meeting the work goals (Tsui and O'Reilly 1989). Minorities and women may internalize beliefs about their incompetence in nontraditional jobs, thereby suppressing their aspirations for such jobs or doing them less well (Heilman, Rivero, and Brett 1991; Parsons, Herold, and Leatherwood 1985).

Beyond imagined incompetence, minorities and women may not fit managerial occupations because they are not considered trustworthy. According to Kantor (1977), the fundamental problem of managing uncertainty in complex organizations has historically resulted in "homosexual reproduction" in managerial promotions. Because evaluative criteria for managers are indefinite, executives often base their decisions about promotions on trustworthiness and loyalty. White male executives thus select other white men who can be trusted to assume discretionary, responsible positions and share similar attitudes and values (Tsui and O'Reilly 1989). Indeed, the director of executive education at MIT exclaimed, "In tough times, top management prefers to entrust the risks that accompany decision making at the highest levels to a known quantity—meaning someone like themselves. A man" (Fisher 1992).

Heilman (1983) reviewed many studies showing that presumptions that women were not fit for male, sex-typed occupations impaired their employ-

ment conditions. Lobel and St. Clair (1992) found that family-oriented women (mostly managers) with preschool children received *higher* merit increases than did family-oriented men with preschoolers, but that career-oriented women with preschoolers received *lower* merit increases than did career-oriented men with preschoolers. Ironically, conformity to traditional gender-role stereotypes (being a family-oriented mom) may offset adverse treatment toward women entering male-dominated careers.

Minorities and women may develop poor leader-member exchanges with their superiors, thereby imperiling their progress. More than 70 percent of *Fortune*-1000 top executives have had mentors (Graen and Scandura 1986; Kantor 1977; Thomas 1993). Yet minorities and women have fewer or less positive mentorships because white male executives prefer to mentor subordinates with whom they can identify (Kantor 1977; Morrison and Von Glinow 1990; Thomas 1993; Tsui and O'Reilly 1989). A third of the CEOs questioned in a recent poll taken by *Fortune* magazine believed that lack of informal advice and sponsors stymie women's careers (Fisher 1992). Given inferior leader-member exchanges, female and minority managers lack influence with their superiors, so their capacity for managing their own subordinates is hampered (Kantor 1977). Besides this, minority and female managers may lack sponsors among top management who could defend them at contested meetings and offer career-enhancing job opportunities (*ibid.*). These "godfathers" or "rabbis" can also help junior managers bypass the organizational hierarchy—by, for instance, providing inside information—and empower them through "reflected power" (*ibid.*).

***Depressed Earnings*** Low or inequitable pay may also escalate quits among women and people of color (Gleckman et al. 1991). Typically, they earn less because they mostly work in low-paying secondary (hourly) jobs (Bovee 1991; Hom 1979; Kantor 1977; Morrison and Van Glinow 1990; Gleckman et al. 1991). Despite their growing admission to management and male-dominated professions, women and minorities still earn less and express more dissatisfaction about their pay ("Black College Graduates" 1991; Morrison and Von Glinow 1990). Morrison and Von Glinow (*ibid.*) reported that female vice presidents earn 42 percent less than their male peers, and Gerhart and Rynes (1991) found that female MBA graduates who negotiated salary offers attain lower payoffs than did male graduates. Stroh, Brett, and Reilly (1992) impressively demonstrated that female managers earn less than male managers do despite their similar education, family power, industry, employment patterns, and willingness to relocate.

***Career Blocks*** Limited or blocked promotions underlie turnover, and especially for minority and female departures. Women and minorities primarily hold secondary, hourly jobs, from which advancements are limited or scarce (Cox 1991; Hom 1979; Kantor 1977). Even those assuming professional or managerial jobs progress more slowly than white men do, and the promotions are eventually halted by a "glass ceiling" (Fisher 1992; Morrison and

Von Glinow 1990). No doubt, the limited advancement of women trapped in white-collar “ghettos” (Konrad 1990; Morrison and Von Glinow 1990; Gleckman et al. 1991) and Asians in technical professions (Duleep and Sanders 1992; Mandel and Farrell 1992) reflects occupancy in short-ladder occupations. Cose (1993) termed the predominance of black executives in departments of community relations and public affairs as “pigeon-holing.”

Regardless of the reasons that careers stall, a myriad statistics attest to blocked promotions for people of color and women. For instance, women occupy merely 1.7 percent of corporate officerships in the companies comprising the *Fortune* 500 (Morrison and Van Glinow 1990). The Pacific Studies Center concluded that, despite Asians’ large presence in Silicon Valley firms, they accounted for less than 10 percent of the management ranks (Mandel and Farrell 1992). More revealing, an inquiry made by the Department of Labor in 1991 uncovered much lower glass ceilings than formerly thought that were restricting women from entering mid- and upper-level management (Garland 1991). Exit surveys of minority and female professionals and managers disclose that blocked careers are a prime reason for escaping corporate life (Cox and Blake 1991; James 1988; Mandel and Farrell, 1992). One-third of 100 leading corporate women profiled in a survey by *Business Week* in 1976 had left corporate America ten years later (Morrison and Von Glinow 1990).

Limited career mobility for minorities and women may also prompt involuntary quits because limited advancement breeds a cycle of disadvantage, reconfirming the belief that they are only competent to work in dead-end jobs. Kantor (1977) observed that women placed on dead-end tracks develop less commitment to the company, downplay their career aspirations, withdraw from extra responsibilities at work, and doubt their competence. As a result, they become undesirable candidates for promotion. If the alienation becomes acute, they are eventually dismissed.

**Work Activities** Minorities and women often occupy less intrinsically satisfying jobs, which weaken their loyalty to the organization (Mathieu and Zajac 1990). Many hold hourly jobs, exposing them to routine work in which they have little discretion (Hom 1979; Morrison and Von Glinow 1990). Even female and minority professionals and managers take on less enriched, less challenging work (Cose 1993; Kantor 1977; Morrison and Von Glinow 1990). Nonwhite or female managers may have less authority and autonomy because they lack informal “empowering” alliances with mentors and peers (Cleveland and Kerst 1993; Kantor 1977). Doubting the competence of minorities and women in nontraditional roles (Heilman, Rivero, and Brett 1991), superiors may also give them fewer challenging assignments that solve urgent problems in the organization (Kantor 1977; “Upward Mobility for Women” 1991). Several studies recount how women enjoy fewer developmental assignments involving start-ups, troubleshooting, or international experiences (Morrison and Von Glinow 1990; “OFCCP Glass Ceiling Initiative” 1991). Depriving nonwhites and women of such opportunities makes them less visible to top management and less prepared for executive posts (Garland 1991).

**Acceptance by Coworkers** Harassment by white or male coworkers may induce minorities and women to resign. The business press reports widespread antagonism or indifference from white male colleagues (James 1991; Morrison and Von Glinow 1990, who are motivated by prejudice (Heilman 1983; Jones 1972; Stockdale 1993) and dissimilar cultural values (Cox, Lobel, and McLeod 1991; O'Reilly, Caldwell, and Barnett 1989; Tsui and O'Reilly 1989). Angered over pay inequity and the implied rejection by his white colleagues, a black attorney in a law firm declared that he would "go to [his] own people for acceptance" (Cose 1993). Well-publicized affirmative-action programs may arouse a backlash from white men who resent incoming people of color or women, viewing them as unqualified or as jeopardizing their own jobs (Brimelow and Spencer 1993; Cox 1991; Gates 1993; Gleckman et al. 1991; Solomon 1991).

Whatever its origin, rejection from Anglo males impedes the careers of women and minorities, driving them out of the company. Peers facilitate not only the socialization of newcomers but also their effectiveness at work (Cleveland and Kerst 1993; Feldman 1988). Coworkers provide vital information about the job including career advice (Lobel 1993; Luthans, Rosenkrantz, and Hennessey 1985). Professionals and managers require the cooperation of their peers on joint projects and acquire needed power through informal alliances and coalitions with peers (Cleveland and Kerst 1993; Kantor 1977). Superiors often solicit input from coworkers, including reports about collegiality (a critical basis for managerial promotions), for performance evaluations (Cleveland and Kerst 1993; Kantor 1977). Not surprisingly, women queried in a survey by Honeywell cite personal relationships as essential for upward mobility (Konrad 1990).

**Performance Pressures** The extra pressures to perform that are imposed on women and nonwhites in nontraditional careers may prompt them to leave the company. They may have been promoted into managerial jobs, for which they lack sufficient experience or training, because the firm is being pressured to achieve affirmative-action goals (Brimelow and Spencer 1993; Gates 1993). Tokens in traditional white male occupations may feel that they must excel (Kantor 1977; Thomas 1993). Basically, tokenism itself induces special performance pressures because of publicity, representative symbolism (being viewed as a symbol of a race or gender category rather than as an individual), and tokenism eclipse (the token's extraneous attributes blotting out the token's achievements) (Kantor 1977). Token minorities or women are highly visible due to their race or gender uniqueness (Morrison and Van Glinow 1990). In the limelight, they face more pressures to conform and to avoid mistakes, which will be glaringly obvious (Kantor 1977). Such conformity may trigger an identity crisis; a black vice president who, because he rarely spoke out against racism (to avoid being typecast as a troublemaker and to further his career), expressed guilt about not "being black" (Cose 1993).

Tokenism enhances the perception—when there are only a few minorities or women in a firm—of their being representative of a category.

Regarded more as symbols than as individuals, tokens strive to be exemplary models to prove that their group can succeed in jobs from which they have been historically excluded. Failure may risk prospects of other representatives of the category. A token's secondary characteristics may obscure his or her accomplishments as an individual. Made distinctive by gender or race, tokens must overachieve to make their performance more noticeable than their auxiliary traits are. Cose (ibid.) writes about an Afro-American woman, a Harvard-educated lawyer, who carries a Bally bag when visiting exclusive shops to assure clerks that she is fit to shop there.

Nonwhite and female newcomers may feel the need to overachieve to avoid being stigmatized by aggressive (and well-publicized) affirmative-action programs (Heilman, Block, and Lucas 1992; Morrison and Von Glinow 1990; Solomon 1991). Minorities or women who have been preferentially selected may feel less competent and devalue their accomplishments more than do those chosen on merit (Heilman, Rivero, and Brett 1991). As a black journalist put it, "Your achievement is defined by your color and its limitation. And even if in reality you've met your fullest potential, there's an aggravating, lingering doubt . . . because you're never sure" (Cose 1993, p. 58). Therefore, member of racial minorities and women must excel to reverse the beliefs of others and themselves that they were unqualified for admission to formerly exclusive jobs (Gleckman et al. 1991).

***Sexual Harassment*** Sexual harassment is a form of sex discrimination that motivates many women to quit (Gutek and Koss 1993; "How Employees Perceive Sexual Harassment" 1992). Summarizing polls and surveys in the past decade, Fitzgerald and Shullman (1993) estimated that one of every two women has been sexually harassed at some time during her working life. Similarly, in a telephone survey using random-digit dialing of a national sample of working women, it was disclosed that 18 percent have encountered sexual harassment (Gutek and Koss 1993). A poll taken by UCLA in 1992 of women executives (vice presidents and higher) at fifteen hundred major corporations revealed that 59 percent had been sexually harassed at work and that 5 percent of them coped with harassment by leaving (Swingle 1993). According to many broad surveys, 10 percent of harassed women have left employment (Gutek and Koss 1993). A government study projected that the sexual harassment of federal employees cost, over a two-year period, \$200 million because of the cost to replace leavers, higher medical-insurance claims and sick leave benefits, and productivity losses (Fitzgerald and Shullman 1993).

Increasingly, firms implement various strategies to deal with sexual harassment and many organizations have enacted policies prohibiting it (Fitzgerald and Shullman 1993; Gutek and Koss 1993). More effective than written policies are personal statements from executives, like that of the CEO of a midwestern utility who circulated a brochure and letter to all seven thousand employees publicizing his "zero tolerance for sexual harassment" (Segal 1992). Employees often complain that management "doesn't walk what it talks" (Pryor, Lavite, and Stoller 1993). Another popular remedy has been



sensitivity training for men, the chief culprits of sexual harassment (Cleveland and Kerst 1933), who may mistake friendliness in a woman for sexual overtures and who tend to condone or tolerate sexual harassment (Deutschman 1991; Stockdale 1993). At a minimum, organizations should monitor sexual harassment using psychometrically sound instruments, such as Fitzgerald and Shullman's Sexual Experience Questionnaire (1993) that measures various forms of harassment.

Organizations might screen out job candidates—especially those seeking managerial posts—who might sexually harass others. For this selection, employers might consider Pryor, Lavite, and Stoller's scale, Likelihood to Sexually Harass (LHS) (1993), which has men imagine themselves in ten situations where they control rewards for attractive women and project their likelihood of using rewards to exploit the women sexually. Survey research finds that high-LSH men hold adversarial sexual beliefs and express stronger intentions of rape. Laboratory experiments reveal that high-LSH men (acting as trainers) sexually touched a female trainee more frequently than did low-LSH men after they had earlier witnessed an authority figure sexually harassing the trainee (*ibid.*).

Employers might structurally change the workplace by improving the balance of females to males in work groups, especially in male sex-typed occupations. Research established that sexual harassment increases with a token female presence in work groups and female incumbency in nontraditional jobs (Deutschman 1991; Fitzgerald and Shullman 1993; Lach and Gwartney-Gibbs 1993). The promotion of more women into management may lessen sexual harassment because, ironically, women working for male superiors face more sexual harassment from their coworkers (Fitzgerald and Shullman 1993). Grievance procedure for filing harassment claims—and safeguards against retaliation—may curb turnover (Gutek and Koss 1993). Anecdotal and survey data reveal that slow-responding complaint systems in which there is no guarantee of confidentiality or protection from reprisal disillusion victims, motivating their departure (Deutschman 1991; Gutek and Koss 1993; "How Employees Perceive Sexual Harassment" 1992; Lach and Gwartney-Gibbs, 1993). A Boston law firm has an ombudsperson counsel victims privately; a Minnesota utility company lets victims file complaints with their superiors, the human resource department, or a panel of peers (Segal 1992); DuPont has a confidential twenty-four hour hotline offering advice on personal safety and sexual harassment (Deutschman 1991).

As firms rush to restrain sexual harassment, certain sociodemographic trends outside the workplace may frustrate these efforts (Lobel 1993). Rising female representation in organizations increases contact between men and women, engendering more nonharassing *and* harassing sexual behavior. The AIDS panic may encourage people to date coworkers, and the escalating divorce rate may encourage the development of more intimate relationships at work to replace dissolving affective relationships at home. According to a recent Gallup poll and not surprisingly, 57 percent of employed Americans view workplace dating as acceptable (*ibid.*). To deter sexual harassment

without interfering with office romances, employers might introduce policies restricting certain forms of sexual behaviors rather than trying to eradicate sexuality from the workplace (ibid.; Segal 1992). In particular, they might prohibit superiors from dating subordinates (which arouses the most collegial resentment and legal suits) and have in place policies embodying definitions by women of unsuitable forms of sexuality in the workplace. A “reasonable woman” standard that sets company norms may best combat sexual harassment because it is women—more readily than men—who interpret certain acts as sexual harassment (Segal 1992; Stockdale 1993).

In the wake of the confirmation hearings for Clarence Thomas and the Navy’s Tailhook scandal, many companies have hurriedly initiated training to combat sexual harassment. Yet a recent review of the sexual harassment literature concluded that “virtually no attempt has been made to evaluate the outcomes of sexual harassment training interventions” (Fitzgerald and Shullman 1993, p. 16). Echoing this complaint, we further recommend evaluations of sexual harassment programs for reducing turnover among women and men.

***White Male Flight*** Paradoxically, the entry of minorities and women into the workplace may induce exits among white men by dissolving group cohesion—because there are more conflicts and miscommunications with different peoples—threatening their self-identity (Tsui, Egan, O’Reilly 1992). Self-categorization theory implies that people often base their identity on social categories, such as gender and race (ibid.), preferring homogeneous groups of others who are similar because these groups contain the “self” (Nkomo 1992). They view out-group members as being different from and less attractive than their in-group. Because social identity is derived from membership in homogeneous groups, the members will maintain their standing and protect the group from undesirable outsiders. The changing demographic composition of the referent group—the White Male Club—undermines the group as a basis for social identity and self-esteem. Some white men may thus ask themselves, “Do I belong here?” and decide to resign.

Upholding this theory, Tsui Egan, and O’Reilly (1992) found that growing female representation in 151 work units diminished the men’s commitment to the organization and their inclination to stay. Increasing minority concentration in the units intensified white flight. These provocative findings question the conventional assumption behind the cultural diversity movement that heterogeneity inevitably enhances harmony between races and between the sexes. In fact, it is neglected facilitating conditions, such as superordinate goals, that best surmount tension between heterogeneous members of a group.

Imagined or actual reverse discrimination may motivate white men to desert companies that are aggressively promoting affirmative action. Many white men feel that affirmative-action programs have become a means to discriminate against them rather than a way to eradicate racial and sexual discrimination (Gates 1993). One white male in ten expressed, in a poll taken in 1984, the belief that quotas had cost them promotions (Brimelow and

Spencer 1993). Similarly, a national poll taken by *Newsweek* magazine revealed that 48 percent of white men believe that “white males should fight against affirmative-action programs”; only 36 percent rejected this opinion (Cose 1993). Such sentiments are, no doubt, fueled by employers who notify white male applicants that they were denied employment so that the company might meet affirmative-action goals (ibid.; Solomon 1991). Though face-saving, this rationale surely infuriates the excluded white males, who feel that they unfairly lost jobs or promotions to unqualified minorities or women. Perceived or real reverse discrimination may thus dissolve the commitment of white men to organizations.

***Immigration and Foreign Ownership*** Rising immigration—new immigrants generated 39 percent of the total population growth between 1980 and 1990—threatens native-born Americans (Mandel and Farrell 1992). Quite likely, the growing presence of immigrants in the domestic workplace may breed higher turnover among immigrants and Americans alike. Increasing cultural heterogeneity in work groups may produce more interpersonal conflicts and quits (O’Reilly, Caldwell, and Barnett 1989; Tsui and O’Reilly 1989). Many immigrant scientists and engineers have abandoned Silicon Valley firms to set up their own businesses because they faced impediments to their careers (Mandel and Farrell 1993). Paradoxically, immigrants may encounter more hostility from minorities than from Anglo-Americans as immigrants and minorities often compete in the same labor markets. For example, a Harris poll relates that 73 percent of blacks believe that business would rather hire immigrants than black Americans (Mandel and Farrell 1992).

Conversely, Americans increasingly work for foreign-owned companies that, owing to cultural prejudice, may discriminate against them (Palich, Hom, and Griffeth in press; Payson and Rosen 1991). The Japanese Labor Ministry estimated that 57 percent of 331 Japanese firms operating in America face discrimination lawsuits (Payson and Rosen 1991). For \$2.7 million, Sumitomo Corp. settled a suit brought by female secretaries charging denial of promotions and pay raises in favor of male Japanese coworkers. A federal court ruled that Quasar discriminated against Americans by reserving certain managerial posts for Japanese nationals (ibid.) Honda of America resolved a \$6 million case over allegations that its hiring requirement—that workers live within thirty miles of its plant (even *before* applying for a job)—adversely impacted the employment of minorities (ibid.).

## Cultural Diversity Management

Responding to changing demographics in the work force, many large corporations have sought to improve their management of cultural diversity, Cox (1991) developed a taxonomy of cultural diversity management and catalogued practices that advance the goals of cultural diversity. Cox’s typology of diversity management techniques and the objectives they serve are summarized in Figure 10-6. He proposed pluralism as a primary corporate objective:

Goals	Implementation Procedures
I. Pluralism Aid minority culture Influence on company norms and values	A. Managing/valuing diversity training B. New member orientation C. Language training D. Diversity on key committees E. Advisory groups to top management F. Diversity in mission statements
II. Structural Integration Representation at all job levels and functions	A. Educational programs B. Affirmative action C. Targeted career development D. Managerial appraisals and rewards for diversity goals E. Flexible work schedules
III. Integration into Informal Networks Remove barriers to entry and participation	A. Mentoring programs B. Sponsored social events
IV. Cultural Tolerance Reduce prejudice	A. Equal-opportunity seminars B. Focus groups C. Bias-reduction training D. Internal research on status of minorities and women
V. Intergroup Cooperation Reduce conflict among demographically different Reduce white-male backlash	A. Education for white males about inferior status and progress of minorities and women B. Conflict-management training

**Figure 10-6 Managing Cultural Diversity.** (T. Cox, "The Multicultural Organization," *Academy of Management Executive*, 5 (2) (1991): 41.)

the valuing of cultural differences to the extent of permitting minority culture to shape company culture. Attesting to the significance of this goal, a black woman leaving corporate America believed that there her race was seen not as an asset but as something she had to overcome (Cose 1993). To further pluralism, Cox recommended specific training, such as managing and valuing training in cultural diversity (communications about the cultural norms of different groups), the orientation of new members (help for minority and female workers to adjust to their new jobs), and language training (for instance, English instruction for immigrants). Beyond training, Cox argued that support from top management is essential in fostering pluralism. Toward this end, he prescribed that minorities and women be represented on key committees, the inclusion of goals for diversity in mission statements, and the establishment of advisory groups—comprising minorities and women—for senior management to provide advice on improving diver-

sity in the work force. (Avon's Multicultural Participation Council or U.S. West's Pluralism Council are examples.)

Cox (1991) also suggested structural integration—the broad representation of minorities and women at all organizational levels and functions—as another goal of diversity. This suggestion accords with perspectives on power conflicts, which contend that the abolition of the racial division of labor in firms will attack the basic source of discrimination: the desire of management to weaken the workers' collective strength and to preserve its domination (Nkomo 1992). Affirmative action for top-level jobs ("Moving Past Affirmative" 1990), educational efforts to develop the skills of minorities, special career-development programs (McDonald's "Black Career Development Program"), inclusion of diversity management in managerial appraisals and rewards, and introduction of flexible work arrangements and schedules (to reduce the conflicts between work and family that burden women) can further structural integration. Xerox is striving for a 35 percent female representation in 300 top executive jobs in one division by 1995 and holds managers accountable for that goal ("Moving Past Affirmative" 1990). Baxter International and Monsanto tie managers' raises to affirmative-action goals (Fisher 1992; Konrad 1990).

Besides this, cultural-diversity programs might promote integration in informal networks (Cox 1991). Mentoring programs, company-sponsored social events, and support groups (associations sharing information and social support) for minorities can further the involvement of minorities in networks. Security Pacific's "Black Officers Support System" recruits and retains blacks (Morrison and Von Glinow 1990); Honeywell and Pacific Bell team promising women and minorities with experienced executives who coach them on career strategies and corporate politics (Fisher 1992; Konrad 1990). Sustaining the validity of such prescriptions, surveys describe effective diversity programs as embodying networking, mentorships, and the requirement that management be accountable for achieving results in diversity ("Managing Diversity: Success" 1991).

Effective diversity management must also combat prejudice. Seminars on equal opportunity, focus groups (small groups confronting attitudes and feelings about differences within the group, such as Digital's "Valuing Differences" groups ["Moving Past Affirmative" 1990]), bias-reduction training (attacking prejudice), and company reports on the progress of the careers of minority and female employees may lessen bigotry in the work force. Some companies have instituted a tracking system for minority and female managers to insure that they acquire enough developmental experience to move up the corporate ladder ("One Company's Approach" 1991; "OFCCP's Glass Ceiling" 1991). A task force organized by Equitable Financial ("Women's Business Resource Group") addresses women's problems identified by its surveys. Finally, effective diversity management should minimize conflict within groups (Solomon 1991). In particular, communiqués describing the special difficulties of minorities and women at work or combating misperceptions of their reputed incompetence may temper white male

Policy	Maximum Score
Flexible Schedule	105
Family Leave	40
Financial Assistance	80
Corporate Giving and Community Service	60
Dependent-Care Services	155
Management Change	90
Work-Family Stress Management	<u>80</u>
Total Possible Score	610

**Figure 10-7 Index of Corporate Family-Friendliness.** (A. Bernstein, J. Weber, and L. Driscoll. "Corporate America is still no place for kids," *Business Week*, Reprinted from page 236 of November 25, 1991 issue of *Business Week* by special permission, copyright © 1991 by McGraw-Hill, In.c.

backlash, and conflict-resolution training may help supervisors to manage conflicts among different ethnic groups. Cox (1991) proposed a family of promising techniques for promoting cultural diversity that may help minorities and women stay on the job. Given the growing significance of cultural diversity, further research must validate those methods (Morrison and Von Glinow, 1990) for supportive evidence comes mostly from testimonials ("Managing Diversity: Success" 1991; "One Company's Approach" 1991).

## MANAGING INTERROLE CONFLICT

The massive entry of women into the work force further compels organizations to accommodate conflicts between work and family (Galen 1993). Mothers of preschool-aged children are the fastest growing segment of the labor force (Milliken, Dutton, and Beyer 1990). On top of these developments, representatives of single-parent and dual-income families in the workplace now outnumber representatives of traditional nuclear households (Bernstein, Weber, and Driscoll 1991; Farrell 1992; Galen 1993; Zedeck and Mosier 1990). Twenty-five percent, double that in 1980, of the working-age population now cares for aging relatives (O'Reilly 1992; Shellenbarger 1992). These demographic trends portend increasing conflicts between and work and family for employees, and especially for women who traditionally bear domestic obligations (Kossek 1990; Ralston and Flanagan 1985; Zedeck and Mosier, 1990). The Department of Labor found that, of all women opting out of work in 1986, 33 percent did so to devote more time to the family; of all men who did so, 1 percent cited that reason (Mattis 1990). Likewise, a survey by Yankelovich Clancy Shulman disclosed that nearly 33 percent of working mothers want to quit to become full-time homemakers (Spiers 1992).

Such escalating interrole conflict may be likely to translate into higher quits, especially among women (O'Driscoll, Ilgen, and Hildreth 1992; Galen 1993; Hom, Kinicki, and Domm 1989; Kossek 1990). Long-term career studies find that many teachers and nurses leave their professions to satisfy domestic duties (Donovan 1980; Murnane, Singer, and Willett 1989). A survey by a public utility found that many working women contemplate quitting to rear children (Kossek 1990). Addressing this cause of turnover, firms have introduced various interventions to help employees balance the responsibilities of career and family (Bernstein, Weber, and Driscoll 1991; Galen 1993; Schwartz 1992). The National Council of Jewish Women found, in a nationwide study of twenty-six hundred pregnant women, that women working in firms that accommodated pregnancy prolonged their employment by one and a half months. An inquiry by the U.S. Census Bureau showed that 71 percent of women who received maternity benefits, but only 43 percent of those without benefits, returned to work within six months of childbirth (Trenk 1990). In the following section, we discuss promising approaches catalogued by Zedeck and Mosier (1990): maternity and parental leave; child- and dependent-care services; alternative work schedules; and telecommuting. The Families and Work Institute used these strategies to devise an overall company index, shown in Figure 10-7, of family-friendliness (Bernstein, Weber, and Driscoll 1991).

### Family Leave

Exit interviews and surveys find that many women forsake the workplace—temporarily or permanently—to bear or raise children (Gerson 1985; Huey and Hartley 1980). Maternity or parental leave would doubtlessly reduce exits (Cook 1989; Johnson 1990). In particular, the 1993 Family and Medical Leave Act may sustain loyalty by guaranteeing women *and* men twelve weeks of unpaid leave for childbirth or family sickness. This bill ensures that the same or a similar job is available upon return and that health-insurance coverage continues during the leave. Though they ease conflicts between work and family, these federal provisions are still limited. The law excludes firms employing fewer than fifty workers, and unlike many European laws, does not mandate *paid* leave. Some firms offer more generous benefits than the law requires, especially informally (Bernstein 1991b). Forty percent of working women have partial or full *paid* maternity leave, which they largely receive as a disability or sickness benefit. New parents at AT&T can receive up to a year's unpaid leave (Galen 1993; Zedeck and Mosier 1990).

Notwithstanding their promise (Nobile 1990), there is little corroboration that family leave policies truly reduce exits, a prime motive for their adoption (Bernstein, Weber, and Driscoll 1991; Galen 1993). Because other family-responsive measures were implemented simultaneously, the studies mentioned above merely suggest that accommodation for pregnancy lowers quits (Trenk 1990). Aetna Life & Casualty introduced family leave because 23 percent of the women returning to work after childbirth left later (*ibid.*)

This leave—allowing new mothers up to six months off without pay—and accommodation for part-time work halved turnover. Similarly, the availability of extended parental leave possibly explained why 90 percent of new mothers returned to AT&T within six months of delivery (Galen 1993).

### **Child & Dependent Care Services**

Increasingly, business provides daycare services, usually in the form information and referral programs or flexible spending accounts (Goff, Mount, and Jamison 1990; O'Reilly 1992; Zedeck and Mosier 1990). Most employees with children prefer on- or near-site childcare, which is also the costliest daycare service (Kossek 1990; Zedeck and Mosier 1990, Yalow 1990). Even though Goff, Mount, and Jamison (1990) found that on-site child-care did not decrease conflicts between work and family, the Campbell Soup Company claimed that on-site child-care at its headquarters lowered quits (Yalow 1990). More convincingly, Milkovich and Gomez (1976) showed that mothers who enrolled their children in company-sponsored daycare quit less often than did mothers who did not. Youngblood and Chambers-Cook (1984) discerned that the availability of daycare decreased employees' intentions to withdraw.

### **Alternative Work Schedules**

Alternative work schedules may help employees balance home and work duties. Experimental tests find that flexitime does not impact quits (Dalton and Mesch 1990; Ralston and Flanagan 1985). Compressed work schedules—longer hours but for fewer days—may build company loyalty by giving the employees more days to handle other duties (Pierce and Dunham 1992). Compressed work weeks—with recuperative days off—can compensate for the disruptive effects—psychological and for the family—of shift rotation, a leading cause of turnover (Choi, Jameson, Brekke, Podratz, and Mundahl 1986; Newby 1980; Zedeck, Jackson, and Summers 1983). Pierce and Dunham (1992) showed that police officers on shorter work weeks experienced higher morale and greater ability to handle outside demands.

Case studies and other empirical work indicate that part-time work and job-sharing—two employees share a full-time position—can reduce resignations (Galen 1993; Shellenbarger 1992; Zedeck and Mosier 1990). Hospitals have long experimented with part-time and temporary work to retain nurses and lure inactive nurses back into nursing (Bogdanich 1991; Huey and Hartley 1988; Laird 1983; Newby 1980; Wandelt, Pierce, and Widdowson 1981). Many mothers in other occupations credit part-time schedules and job-sharing for their return to work (Johnson 1990; Mattis 1990). In a national survey taken in 1990, 39 percent of women endorsed part-time work for women with children (Bernstein 1991a). In professional firms, woman lawyers and certified public accountants can, increasingly, work part-



time and benefit from extended paths to partnership (Ehrlich 1989), although such “mommy tracks” may derail their careers (Schwartz 1989). Sixty-eight percent of the employers surveyed by Catalyst believed that part-time work and job-sharing improve the retention of women employees. NationsBank Corp offers valued employees job-sharing to retain them (Shellenbarger 1992).

### Telecommuting

Telecommuting—working at home and electronically transferring the results to the office—helps working parents because they are more available during the day and do not have to commute (Zedeck and Mosier 1990). In an early study, interviews with female office employees disclosed that telecommuting allowed them to care for children and strengthened their commitment to the organization (Olson and Primps 1984). Yet they earned lower pay and fewer benefits and faced *more* conflict over the simultaneous demands of work and family. Male professionals reported less work stress (for interruptions were fewer and office politics less demanding), and commuting stress, while enjoying more leisure opportunities—weekday recreation avoids weekend crowds.

Many businesses are experimenting with family-assistance programs to help employees balance their personal lives with their work. Evaluations of these efforts have primarily examined the overall impact of a host of family-responsive measures. Seventy-one percent of Johnson & Johnson employees using flexitime and family leave stated that these programs were “very important” in their decisions to stay; Continental Corporation’s family-friendly programs, including job-sharing and telecommuting, halved its voluntary exit rates (Galen 1993). A Duke Power customer-service center reduced turnover after introducing a child-care center and compressed work weeks and eliminating shift rotations; its annual quit rate was 12 percent compared with typical quit rates of 40 percent in telephone-call centers nationwide (*ibid.*).

Despite these impressive statistics, more rigorous experimental (or quasi-experimental) tests of how effectively family-responsive measures deter resignations are sparse. To date, validation rests mainly on testimonials of successful examples (which may not be representative cases) (Goff, Mount, and Jamison 1990; Kossek and Grace 1990). The few empirical evaluations that do exist are plagued by various methodological shortcomings, lacking control groups and statistical controls for extraneous confounds (Miller 1984). Companies usually instate several family benefits simultaneously, making it difficult to isolate the efficacy of a particular intervention (see Trenk 1990). In the light of rising demands in the work force for family benefits, more scholarly inquiry is urgently warranted to determine which approaches promote job tenure (Kossek and Grace 1990).



FUTURE DIRECTIONS  
IN TURNOVER RESEARCH

In this last chapter, we suggest an agenda for future research on employee turnover. What topics merit further attention from organizational scholars? Having reviewed the field, we would venture that the following topics are worthy of attention: the development and testing of theories; methods of reducing turnover; models of the consequences of turnover; and research on alternative responses to dissatisfaction.

Our review of current research on predictors of and theories about turnover suggests that there is more room for theoretical advancement. In particular, a theoretical synthesis of the varied existing formulations might develop more comprehensive formulations and shrink the plethora of alternative conceptualizations. For example, future research might build on Griffeth and Hom's integration (1990) of Mobley's and Price and Mueller's models (1977 and 1986, respectively) or the current model inductively derived from our meta-analysis of turnover predictors. Similarly, Lee and Mitchell (1994) construed Mobley's withdrawal process (1977) as representing one of four different decision paths by which employees relinquish their jobs.

Although theoretical parsimony is desirable, we must also consider new explanatory constructs or processes overlooked by prevailing thinking about withdrawal. In particular, the way in which prospective leavers form impressions of the labor market is critically important for the development of theory given the centrality of this construct in modern conceptualizations (Steel and Griffeth 1989). Steel and Griffeth (1989), took a preliminary step in this direction by identifying various elements that are possibly underlying impressions of alternative jobs and Lee and Mitchell (1994) pioneered the notion of the "shock to the system" as a means by which the labor market can affect withdrawal. Turnover models must elaborate the search and evaluation of work alternatives. To date, representation of this process is oversimplified (Hom and Griffeth 1991) or underrepresented (Price and Mueller 1986). Lee and Mitchell (1994) recently proposed that employees perform tests of compatibility and profitability to compare alternatives. The determination that such judgmental processes posited in image theory truly underlie termination decisions awaits further scholarly inquiry. The growing research on job-search and job-choice processes may enrich formulations of turnover, although most of this work has described the ways in which new entrants to the work force seek work rather than the ways in which people already in the labor force switch jobs (Schwab, Rynes, and Aldag 1987).

Writers on turnover increasingly acknowledge the essentiality of commitments outside the workplace but fail to specify precisely how they influence the withdrawal process (Hom, Caranikis-Walker, Prussia, and Griffeth 1992; Hulin, Roznowski, and Hachiya 1985; Mobley, Griffeth, Hand, and Meglino

1979; Price and Mueller 1986; Steers and Mowday 1981). Do employees who are resigning to meet external commitments undergo a different process of withdrawal from those who are seeking alternative work? Unlike job-seeking leavers, they may likely *not* proactively seek outside pursuits (as they would other jobs) nor directly compare them (on commensurate dimensions) with their current employment. Even so, sociological descriptions of women's decisions to abandon employment disclose that they do compare the relative costs and benefits of continued participation in the work force and the income foregone to raise or bear children (Gerson 1985). Do leavers seeking different outside pursuits undertake different termination processes? Do, for instance, quitters returning to college withdraw from the workplace in a different way from those who quit to bear children? Taking a novel approach, Lee and Mitchell's unfolding theory (1994) suggests that nonwork factors affect resignations through shocks and checks for image violations.

Adaptation models may refine prevailing turnover models, explaining why dissatisfaction does not automatically engender resignation. Conventional thinking holds that only failure to find other employment interrupts the translation from dissatisfaction to exit (see Mobley 1977). Yet this presumption of a passive (escape) response to deteriorating work conditions overlooks proactive attempts to change work conditions or affective states (Hulin, Roznowski, and Hachiya 1985). Researchers must consider how other adaptive responses to dissatisfaction (voice, loyalty, neglect, and other exit acts, such as absenteeism) can also abort the termination process. For example, do voice responses increase the "expected utility of internal roles" (that is, improve future work conditions), thereby reducing withdrawal cognitions and quitting (Hom, Kinicki, and Domm 1989)? Alternatively, do dissatisfied employees who "neglect" their job duties (decrease their job inputs) relieve dissatisfaction (ending the withdrawal process [Hulin 1991]) or do performance declines represent the first step toward eventual withdrawal from the job (McEvoy and Cascio 1987)? Adaptation theories may reformulate existing turnover models, specifying why some dissatisfied employees quit immediately, while others perform other adaptive responses before leaving.

Turnover models must further clarify the *process* by which distal causal determinants shape attitudes toward a job. Two schools of theory development dominate present-day perspectives on turnover. One school emphasizes the process by which causes affect exits (Lee and Mitchell 1994; Mobley 1977; Rusbult and Farrell 1983); the other strives to specify exhaustively the content of turnover determinants (Mobley, Griffeth, Hand, and Meglino 1979; Price and Mueller 1981, 1986; Steers and Mowday 1981). Future theory-building efforts must merge both approaches to enrich our understanding of turnover. Griffeth and Hom (1990) combined Mobley's process model (1977) with Price and Mueller's content model (1986). Though encouraging, this integrated model still did not explain the *process(es)* by which immediate determinants of job satisfaction and organizational commitment influence those attitudes. Do poor wages diminish job satisfaction

because of a discrepancy in the perceived and desired levels of rewards or because of inequity between job inputs and reward outcomes? This question deserves further attention and it is possible that sociopsychological writings on attitude formation would have some bearing on it. Comprehensive accounts of the mechanisms through which distal antecedents translate into job attitudes may implicate several processes, such as equity comparisons and unmet expectations, and better clarify how individual differences affect the withdrawal process (see Griffeth and Hom 1988b; Mobley 1977; Steers and Mowday 1981).

## THEORY TESTING

Our review of extant tests of turnover theories suggests the usefulness of more panel investigations (applying structural equations modeling [SEM] techniques) to validate their causal assumptions and to trace causal lag times of the determinants. Future work should use survival analysis to test theoretical models, which thus far have simply estimated the predictive efficacy of an arbitrary set of predictors of turnover (see Morita, Lee, and Mowday 1993). We might extend their ability to predict not only the occurrence of turnover, but also its timing. Additionally, SEM tests that compare and contrast the differences and similarities of turnover models can further their theoretical integration (Cabrera, Nora, and Casteneda 1993).

We recommend more causal modeling extensions of traditional meta-analyses to validate turnover models (Hom, Caranikis-Walker, Prussia, and Griffeth 1992). Procedures that combine the strengths of meta-analysis and SEM techniques may bolster methodological rigor in testing complete models (*ibid.*) SEM meta-analytical tests can evaluate models that, in most studies, have been only partially assessed or have *never* been directly tested (see Premack and Hunter 1988). This new methodological strategy does, however, create other methodological problems, among them, the potential distortion of SEM results that stem from the analysis of correlations (rather than covariances) derived from incomplete data. We welcome more methodological research on ways to correct biases in SEM estimates that are based on such common meta-analytical data.

Although mundane, more construct validation would advance understanding of the turnover process as well as improve the validation of turnover formulations. As discussed earlier, construct validation would decide whether determinants of turnover are truly distinctive or are redundant constructs. Such investigations may also reveal that apparently dissimilar explanatory constructs reflect a common higher-order construct, thereby yielding more parsimonious theoretical constructs (James and James 1989). Further efforts at construct validation should operationalize model variables with maximally heterogeneous methods to verify convergent validity. In the wake of Feldman and Lynch's methodological critique (1988), scholars of turnover must vigorously undertake safeguards against shared-method bias in tests of construct and substantive validity.

Future research should investigate the generality of withdrawal theories. Most theorists of turnover presume that their models hold universally, overlooking the possibility that formulations may falter in some subpopulations or settings (see Lee and Mitchell 1994; Palich, Hom, and Griffeth in press). Given the growing diversity of the domestic work force, the generality of models across different genders and ethnic minorities (including new immigrants) will doubtlessly become a pivotal concern in turnover research. To be sure, theorists of turnover should explicitly acknowledge discrimination (including sexual harassment) in the workplace as a prospective source of resignations by women and minorities. Future work must then determine if discrimination only affects the withdrawal process by inducing job dissatisfaction. If it does, process models of turnover may generalize for women and racial minorities; if it does not, the dominant conceptualizations may require more substantive revision (Hom, Caranikis-Walker, Prussia, and Griffeth 1992).

American firms are internationalizing and employing more local nationals abroad (Palich, Hom, and Griffeth in press). To illustrate, American-owned assembly plants, *maquiladoras*, along the U.S.-Mexican border employ roughly half a million Mexicans (Hom, Gomez-Mejia, and Grabke 1993). This global development raises skepticism about the cross-cultural stability of domestic models of turnover and domestic methods to control turnover (Palich, Hom, and Griffeth in press). A recent examination of incentives in the *maquiladoras* contradicted conventional assumptions about material inducements for workforce loyalty, finding that only a few incentives effectively diminished rates of quitting among Mexican workers, which routinely exceed 100 percent annually (Hom, Gomez-Mejia, and Grabke 1993). Foreign owners are increasingly hiring Americans and still expect to be able to apply home-country practices to induce corporate fidelity. Our turnover models may misportray the process of withdrawal from foreign employers who may be culturally distant from their American work force. In particular, Japanese "welfare corporatism" has evoked much controversy about the capacity of Japanese factory owners to build company commitment among American workers (Lincoln 1989). Turnover scholars should find out whether their formulations generalize to offshore settings and to employment within foreign-owned corporations.

Global competition has accelerated the employment of part-time and contingent employees as companies strive to control labor costs and downsize their work force. Temporary work has accounted for 28 percent of the growth of new jobs in the U.S. economy during the 1993 recovery ("Joyless Recovery" 1993). In growing numbers, writers on turnover suspect that current formulations of turnover misrepresent organizational withdrawal among marginal drifters and workers in secondary labor markets (see Hulin, Roznowski, and Hachiya 1985; Lee and Mitchell 1994). We must attempt to validate or extend our conceptions to include this rising segment of the working population. Admittedly, turnover researchers must initially show that the attrition of peripheral workers is costly to firms. The burgeoning

temporary-help industry may welcome scholarly explorations into why “temps.” quit work and how to retain them.

Turnover researchers must design more comprehensive models of turnover rates at the organization level (see Terborg and Lee 1984). Existing research on turnover among individuals or between industries may not generalize to the firm level, where many managerial decisions about wholesale interventions to lower quits are made (Hom, Gomez-Mejia, and Grabke 1993). The derivation of companywide prescriptions from prevailing psychological or labor-economic evidence may risk the ecological fallacy (Rousseau 1985). Work on quits by individuals may suggest prospective sources of variations in rates of turnover across companies (see Terborg and Lee 1984), but organizational theories may identify more crucial determinants of companywide quit rates (Price 1977). Once developed, organizational-level models may fill a void in our knowledge about organizational-level turnover and suggest more effective means to combat elevated organizational rates of turnover.

## TURNOVER REDUCTION METHODS

In our review of the means of managing turnover, we concluded that nonexperimental or anecdotal data primarily upheld their validity. Future inquiry should apply quasi-experimental and experimental evaluations to determine more rigorously whether promising interventions can promote job survival. Rather than more tests on realistic job previews and job enrichment, we prescribe more investigations on alternative methods of turnover reduction that may better retain employees. In particular, we recommend more evaluation research on workspace protections against overstimulation, socialization practices, and leader-member exchanges.

Beyond this, future tests might redress the traditional overemphasis on intrinsic approaches for curbing exits (Brief and Aldag 1989). More studies on the efficacy of pecuniary inducements would be useful. In particular, the new discipline of compensation strategy suggests various economic interventions (apart from pay raises) for boosting retention rates in a firm (see Hom 1992). To deploy pay strategies effectively, turnover scholars must identify those that are compatible with the company's strategy (Gomez-Mejia and Balkin 1992a; Milkovich and Newman 1993). Gomez-Mejia and Balkin (1992a) demonstrated that business strategy determines the pay strategies that promote organizational effectiveness. By implication, an ideal pay strategy that deters turnover for all organizations may not exist. Consequently, turnover researchers must discover which compensation strategies “fit” which type of organizations (and which business strategy) to maximize the retention of the work force. Here again, the development of theories of organizational-level quit rates might identify appropriate pay strategies.

We further prescribe the consideration of financial incentives that retain highly skilled and very proficient employees—key-contributor awards and variable-pay schemes, respectively. In the wake of corporate downsizing

and depressed job markets, managerial and academic interest in how to reduce overall quit rates has sharply eroded. Interest may shift to the problem of preventing the resignations of valuable employees. Turnover researchers must investigate pay incentives that reinforce the company loyalty of desired personnel, while encouraging the flight of undesired personnel (Williams and Livingstone 1994).

Turnover scholars must begin to consider specific methods for decreasing attrition among women and racial minorities, whose quit rates greatly surpass that of white men (Cose 1993). In particular, more turnover work should be done to evaluate which of the plethora of cultural-diversity programs truly bind women and minorities to firms and to pinpoint the psychological mechanisms for their efficacy. Such evaluations should also consider whether diversity programs inadvertently induce white male flight or whether they sustain company loyalty among *all* members of the work force (Tsui, Egan, and O'Reilly 1992). Turnover research should investigate the process by which the sexual harassment of men as well as of women encourages terminations and the forms of prohibitions against sexual harassment that best enhance job incumbency. As family benefits pervade the workplace, tests of their ability to build company commitment become ever more important.

As attested to by traditional work on weighted application blanks, it is quite likely that more selection research would maximize payoffs for turnover management (Muchinsky and Tuttle 1979). Turnover researchers have neglected this methodology because of its reputed dustbowl empiricism and the potentially adverse impact on the employment of women and minorities. Yet biographical predictors can be chosen according to theoretical considerations (following speculations about the types of people who are happy in a given job) and discriminatory items discarded (Breugh and Dossett 1989; Gatewood and Feild 1987). Biodata methodology using broad autobiographic measures of an applicant's background may further enhance predictions of turnover. Although less verifiable and more subjective than weighted application blanks are, biodata questions (such as self-reported satisfaction with previous jobs) may better detect the elusive "hobo syndrome" or negative affectivity (Hulin 1991; Judge 1992). The predictive accuracy of biodata questions may vary different jobs (see Gatewood and Feild 1987). Survival analysis may disclose whether biographical predictors can forecast turnover timing and multiple turnover episodes (Morita, Lee, and Mowday 1993; Singer and Willett 1991).

We must also reconsider the possibility that current retention-building practices are no longer effective in the wake of widespread corporate restructuring (shrinking promotional opportunities) and downsizing (reducing job insecurity). Japanese scholars have long observed that Japanese firms earn the commitment of workers in exchange for guarantees of permanent employment (Lincoln 1989; Lincoln and Kalleberg 1985). When such fundamental underpinnings of organizational loyalty are steadily eroding, can existing enticements still retain employees or must we revise our commitment-boosting practices (offer, for instance, more monetary inducements in



lieu of stable employment), or devise new approaches? The emergence of self-managing work teams may develop into a new means of binding employees to companies (Manz and Sims 1993). These work teams promise more social rewards, job enlargement, and empowerment for team members, possibly replacing the status and perks of declining opportunities for managerial advancement (Hom and Miller 1992).

## **MODELING TURNOVER CONSEQUENCES**

Our review further recommends more scholarly exploration into the consequences of turnover for individuals and organizations. Beyond the simple effects, more elaborate conceptualizations that take into account all the possible ramifications of turnover may more precisely project its net impact. Such modeling efforts may identify countervailing trends that are activated by turnover and work at cross-purposes to it, possibly cancelling out any impact. Longitudinal research is warranted to track the consequences of turnover over time; short-term effects may differ from long-term effects. The exodus of top executives from a corporation may prove temporarily disruptive but eventually insure the long-term survival of the firm as incoming executives revitalize a declining business with new strategies. More research on identifying the moderators of the consequences of turnover is merited.

## **ALTERNATIVE RESPONSES TO DISSATISFACTION**

Adaptation theories about how different response families relieve dissatisfaction constitute probably the most promising theoretical developments in turnover thinking. Disputing traditional perspectives of withdrawal as a surface phenomenon, this school of thought contends that turnover is symptomatic of maladaptation (Hulin 1991). This rethinking promises several benefits. First, in conceiving quits as one form of withdrawal and withdrawal as one of several response families that lessen disaffection among employees, we might derive more parsimonious but far-reaching formulations. Unlike prevailing accounts of turnover, these alternative viewpoints strive to explain a wider array of reactions to dissatisfaction. Second, these reconceptualizations yield practical insights, suggesting that other adaptive actions (including short-term withdrawal and worsening performance) may provide early signals of impending job exits.

These theoretical views suggest that interventions that combat turnover may breed unfavorable side effects. For example, employees who are "handcuffed" to their jobs (because they receive generous compensation benefits) may express their dissatisfaction in frequent absenteeism or poorer performance. Attesting to such unintended consequences, Meyer, et al. (1989) found that employees whose organizational commitment was derived from extrinsic bases performed their jobs less effectively than did employees who

were emotionally attached to their company. Theories of work adaptation argue that successful managerial interventions target the underlying alienation instead of its behavioral symptoms. Construct validation of a taxonomy of response families must proceed before additional research on adaptation models is undertaken. Perhaps, this avenue of research can follow previous work validating a withdrawal-response family. Future validations must show that actions belonging to the same family covary *and* that all families represent ways to relieve dissatisfaction—that is, they share this psychological function (Hulin 1991).

Turnover is a fertile field for continued academic inquiry. Despite the voluminous literature on the subject, much scholarly explorations remain to further our understanding of this pivotal organizational behavior.

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# TURNOVER COST OF A CLINICAL POSITION

1. Job title: \_\_\_\_\_

Circle the job title below that most closely matches the job title in your agency.

- |                                    |  |
|------------------------------------|--|
| 01. Behavioral Health Worker I     | 08. Psychologist                                   |
| 02. Behavioral Health Worker II    | 09. Staff Psychiatrist                             |
| 03. Behavioral Health Worker III   | 10. LPN  |
| 04. Clinician/Counselor I          | 11. RN I   |
| 05. Clinician/Counselor II         | 12. RN III   |
| 06. Program Coordinator/Manager I  | 13. Occupational/Recreational/<br>Speech Therapist |
| 07. Program Coordinator/Manager II |  |

2. What is the entry-level annual salary for this job? \$ \_\_\_\_\_

3. What is the average annual salary for this job? \$ \_\_\_\_\_

4. What percentage of salary does fringe benefits represent? \_\_\_\_\_ %

5. How many employees with this job title were employed in your agency on Jan. 1, 1991? \_\_\_\_\_

Number of Women with this job title \_\_\_\_\_

Number of Blacks with this job title \_\_\_\_\_

Number of Hispanics with this job title \_\_\_\_\_

Number of American Indians with this job title \_\_\_\_\_

Number of Asians with this job title \_\_\_\_\_

6. How many employees with this job title were employed in your agency on Dec. 31, 1991? \_\_\_\_\_

Number of Women with this job title \_\_\_\_\_

Number of Blacks with this job title \_\_\_\_\_

Number of Hispanics with this job title \_\_\_\_\_

Number of American Indians with this job title \_\_\_\_\_

Number of Asians with this job title \_\_\_\_\_

7. How many employees with this job title voluntarily quit during 1991? \_\_\_\_\_
- Of these, how many leavers were satisfactory (or better) performers? \_\_\_\_\_
- What was the average annual salary of these leavers? \$ \_\_\_\_\_
8. How many employees with this job title were dismissed or laid off during 1991? \_\_\_\_\_
9. How many employees were hired for this job in 1991? \_\_\_\_\_
10. What was the average (hiring) salary of new replacements for this position in 1991? \$ \_\_\_\_\_

### I. SEPARATION COSTS

1. If you conduct exit interviews with departing employees, what is the average length of time for an interview? \_\_\_\_\_ hours
2. What is the typical annual salary of the person (e.g., personnel, agency manager) conducting the exit interview? \$ \_\_\_\_\_
3. Approximately, how much are administrative and paperwork costs of processing one individual turnover (e.g., continued group insurance, removing quitter's name from personnel records)? \$ \_\_\_\_\_
4. Maintaining Client Services During Position Vacancy
- a. Temporary Agencies
- If your agency contracts for services to fill vacant positions with this job title, how many hours per week, on average, do you use temporary employees to fill a full-time vacancy? \_\_\_\_\_ hours
- Typically, for how many weeks do you employ a temp? \_\_\_\_\_ weeks
- What is the typical hourly wage of a temporary employee in this position? \$ \_\_\_\_\_

b. Assignment of Clients to Other Employees

If currently employed mental health professionals assume some or all clients of the leaver, what are costs of case consultation and transfer?

What is the typical clerical cost to transfer client records (of a leaver) to other mental health professionals? \$ \_\_\_\_\_

What is the typical annual salary of the supervisor providing case consultation to other employees? \$ \_\_\_\_\_

On average, how many total hours does this supervisor spend on case consultation for other employees? \_\_\_\_\_ hours

c. Overtime Pay for Heavier Client Load

Does your agency pay overtime for this position? Yes No

If yes, how many total overtime hours per week are typically paid to other employees to assume the leaver's duties and clients? \_\_\_\_\_ hours

What is this position's overtime pay rate:

(Circle your answer)

Straight Time  
Time-and-a-half  
Double-time  
Other \_\_\_\_\_

5. Lost Patient Revenues during Position Vacancy

Does your agency experience any lost client revenues during the time period when this particular job is vacant due to turnover? For example, do clients of a leaver stop using agency services or does your agency turn away clients due to vacancy? For us to estimate this lost client revenue, please provide the following estimates:

a. On average, how many weeks does this position remain vacant before a replacement is hired to fill the vacancy? \_\_\_\_\_ weeks

b. In this particular job, how many work hours are billable hours per week? \_\_\_\_\_ hours

c. What is typical unit rate for client service by incumbents in this job? \$ \_\_\_\_\_ rate

6. Disbursement of Unused Vacation Time:

- a. If employees accrue unused vacation time, can they redeem those hours for cash upon termination? Yes No
- b. If yes, how many hours of vacation time, on average, do departing employees generally accrue? \_\_\_\_\_ hours

**II. REPLACEMENT COSTS**

1. Seeking Replacements from Advertising

What are the cost of advertising to fill *one* vacancy for this job? (newspaper and journal ads, writing ad, updating job descriptions) \$ \_\_\_\_\_

2. Seeking Replacements from Job Fairs or College Placements

- Does your agency send representatives to job fairs or colleges to recruit applicants for this job title? Yes No
- a. If yes, what is the representative's annual salary? \$ \_\_\_\_\_
- b. On average, how many hours are spent recruiting through job fairs or colleges to fill a vacancy in this job? \_\_\_\_\_ hours

3. Processing and Reviewing Applications

What are the clerical and personnel costs of processing resumes and applications for this job (e.g., communications with applicants, writing acknowledgments, filling out affirmative action reports)?

- a. Typical annual salary of the processor: \$ \_\_\_\_\_
- b. Average time to process resumes for this job vacancy: \_\_\_\_\_ hours



What are labor costs of an agency manager who reviews resumes/applications for jobs with this job title?

- a. Typical annual salary of reviewer for this job: \$ \_\_\_\_\_
- b. Average time to review resumes for one job vacancy: \_\_\_\_\_ hours

#### 4. Interviewing Applicants

What are the labor costs of interviewing applicants? Please describe below interview time and interviewers' wages.

- a. On average, how many applicants are interviewed to fill one vacancy on this job (number of interviewed applicants per vacancy)? \_\_\_\_\_
- b. What is the typical annual salary of managers interviewing applicants for this job? \$ \_\_\_\_\_
- c. On average, how many hours does a manager spend to interview one applicant for this job? \_\_\_\_\_ hours
- d. What are annual salaries of other interviewers and their average interview time with one job applicant?

Second interviewer	Annual pay _____	Interview hours _____
Third interviewer	Annual pay _____	Interview hours _____
Fourth interviewer	Annual pay _____	Interview hours _____

#### 5. Selecting Applicants

What are the labor costs of final selection of candidates to fill one vacant position with this job title?

- a. What is the typical salary of the selector? \$ \_\_\_\_\_
- b. On average, how much time does he or she spend choosing an applicant for this job? \_\_\_\_\_ hours
- c. If others are involved in selection, what are their annual salaries and the average time they spend to choose a new hire?

Second selector	Annual pay _____	Selection hours _____
Third selector	Annual pay _____	Selection hours _____

6. Miscellaneous Hiring Costs

Please estimate any miscellaneous hiring costs (including out-of-pocket expenses and administrative costs) to hire one new employee for this job:

Employment tests	\$	_____
Substance-abuse testing	\$	_____
Physical exams	\$	_____
Reference-checking	\$	_____
Fingerprinting	\$	_____
Credentialing costs	\$	_____
Travel expenses for interviewees	\$	_____
Employment agency fees	\$	_____
Paperwork to get staff on payroll	\$	_____
Relocation expenses for new hire	\$	_____
Other costs: _____	\$	_____
Other costs: _____	\$	_____

III. ORIENTATION AND TRAINING COSTS

1. Formal Orientation

What are labor costs to orient a new employee in this particular job?

- a. What is the annual salary of the person conducting orientation? \$ \_\_\_\_\_
- b. On average, how many total hours are spent to orient a new employee? \_\_\_\_\_ hours
- c. Please estimate the dollar costs of booklets, manuals, reports, etc. for orienting and training a new employee: \$ \_\_\_\_\_

2. Formal Job Training

What are the average costs of providing in-house and offsite formal training to a new employee in this job?

- a. What is the annual salary of the in-house trainer? \$ \_\_\_\_\_
- b. On average, how many total hours does this trainer spend to train a new employee? \_\_\_\_\_ hours

- c. How much money does your agency spend to provide offsite training for a new employee in this job? \$ \_\_\_\_\_
- d. If a new employee attends offsite training during work hours, how many work hours are spent in training? \_\_\_\_\_ hours

### 3. Familiarizing New Employees

How costly is it for a new employee to become familiar with agency practices?

- a. On average, how many total hours are required for a new employee to learn the agency's internal system and external environment to do the job properly? \_\_\_\_\_ hours
- b. How many weeks does this learning period typically last? \_\_\_\_\_ weeks
- c. In 1991, how many new hires for this job remained employed in your agency beyond this learning period (number of new hires who remained employed)? \_\_\_\_\_
- d. On average, how many total hours does a manager (or senior employee) spend to familiarize a new employee with agency policies and practices, and patients (e.g., case consultation)? \$ \_\_\_\_\_

### 4. Lost Patient Revenues during New Staff Orientation and Familiarization

Does your agency experience any client revenue loss during this orientation and familiarization period? That is, do new employees see fewer clients or charge fewer billable hours during this time? For us to calculate these costs, please provide the following estimates:

- a. Does a new employee serve fewer clients (compared with experienced incumbents) during this familiarization period? Yes No
- b. If yes, how many weeks does a new employee serve fewer clients during this period? \_\_\_\_\_ weeks
- c. During this familiarization time, how many hours in an average week are billable hours for a new employee? \_\_\_\_\_ hours



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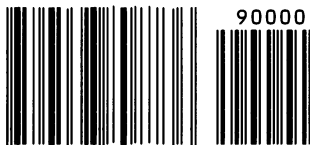
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