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One Hundred Years of Employee Turnover Theory and Research

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We review seminal publications on employee turnover during the 100-year existence of the *Journal of Applied Psychology*. Along with classic articles from this journal, we expand our review to include other publications that yielded key theoretical and methodological contributions to the turnover literature. We first describe how the earliest papers examined practical methods for turnover reduction or control and then explain how theory development and testing began in the mid-20th century and dominated the academic literature until the turn of the century. We then track 21st century interest in the psychology of staying (rather than leaving) and attitudinal trajectories in predicting turnover. Finally, we discuss the rising scholarship on collective turnover given the centrality of human capital flight to practitioners and to the field of human resource management strategy.

Keywords: embeddedness, employee turnover, job attitudes, shocks, participation mindsets

Employee turnover—employees' voluntary severance of employment ties (Hom & Griffeth, 1995)—has attracted the attention of scholars and practitioners alike for a century. In the early years, journalists documented how employers stemmed quits with pay hikes (Local, 1917; Men Quitting Mail Service, 1906), consultants detailed turnover costs and devised reduction strategies (Fisher, 1917a, 1917b), and scholars speculated about why employees leave (Diemer, 1917; Douglas, 1918; Eberle, 1919). Since then, hundreds of studies have appeared (cf. Griffeth, Hom, & Gaertner, 2000; Heavey, Holwerda, & Hausknecht, 2013; Rubenstein, Eberly, Lee, & Mitchell, 2015). Figure 1 illustrates the rapid growth of turnover research in the *Journal of Applied Psychology* (*JAP*) and other premier scholarly outlets. According to our and others' counts (Allen, Hancock, Vardaman, & McKee, 2014), *JAP* has published more turnover articles than any other journal.

Such persistent scholarship reflects a longstanding and growing recognition of how turnover materially affects organizational functioning. Fisher (1917b) first probed hiring and replacement expenses, now estimated at 90% to 200% of annual salary (Allen, Bryant, & Vardaman, 2010). Organizational researchers have shown that turnover disrupts various productivity-related outcomes (Hausknecht, Trevor, & Howard, 2009; Shaw, Gupta, & Delery, 2005) and reduces financial performance (Heavey et al., 2013; Park & Shaw, 2013). Other investigations documented how employees defecting to competitors can undermine their former employer's competitive advantage (via human or social capital losses or trade secret theft) or survival (Agarwal, Ganco, & Ziedonis, 2009). Finally, turnover has other side effects, such as hindering workforce diversity when women of color exit (Hom, Roberson, & Ellis, 2008) or spreading via turnover contagion (Felps et al., 2009).

Based on our collective experience investigating turnover (totaling nearly 100 years), we chronologically highlight key articles in *JAP* and elsewhere that have shaped turnover research or management practice. Like all narrative reviews, we apply subjective judgment in selecting articles, yet focus on highly cited papers and other influential works noted in literature reviews over the years. We divide our timeline into six epochs that mark key transitions and methodological developments in turnover research. Table 1 highlights key contributions of each epoch, while Figure 1 identifies classic papers during that period.

The Birth of Turnover Research (ca. 1920)

Although earlier articles on turnover appeared, Bills (1925) published the first empirical turnover study in *JAP*, demonstrating that clerical workers more often quit if their fathers were professionals or small business owners than those whose fathers worked unskilled or semiskilled jobs. While omitting statistical tests of the relationship between parental occupational status and turnover, Bills nonetheless introduced a *predictive* research design for assessing whether application questions can predict turnover—an approach that evolved into the "standard research design" for test validation and theory testing for most of the 20th century (Steel, 2002).

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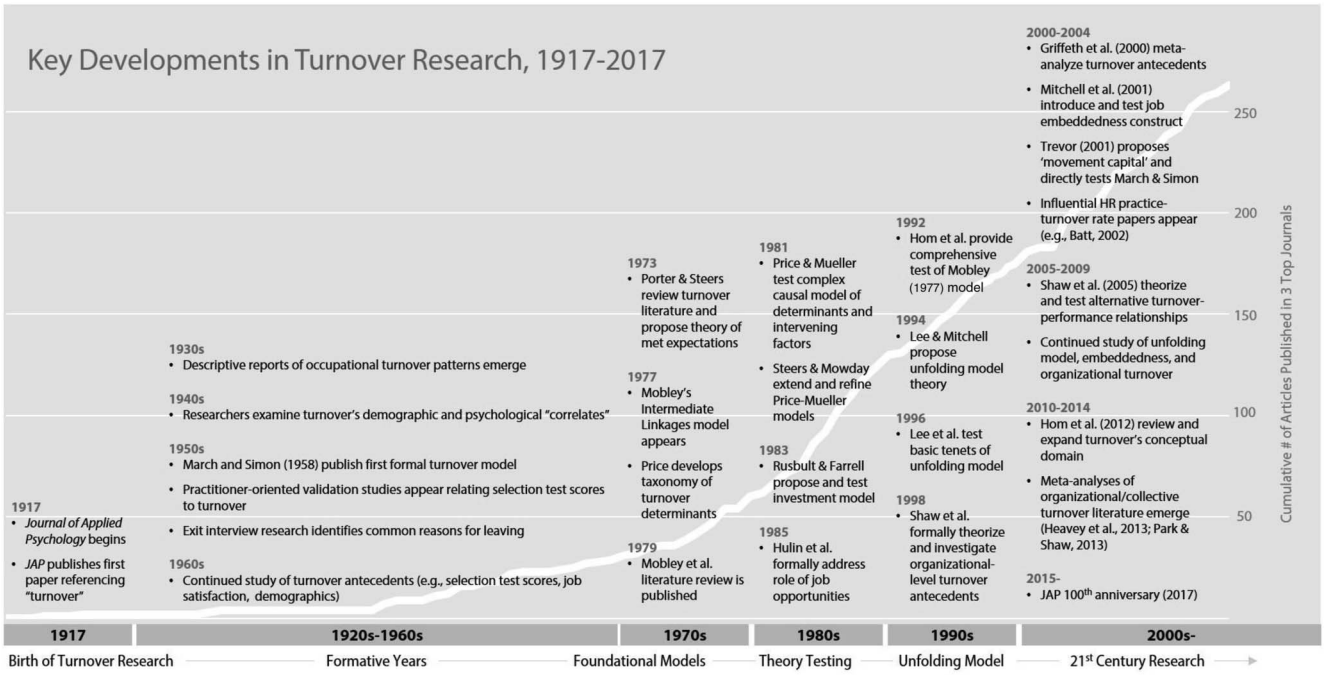

Figure 1. Historical timeline. Cumulative total includes articles published in *Journal of Applied Psychology*, *Personnel Psychology*, and *Academy of Management Journal*, thus representing the journals that have published the greatest frequency of turnover articles over the period.

Formative Years of Turnover Research (ca. 1920s to 1970s)

Predictive Test Validation

With few exceptions (Minor, 1958; Weitz, 1956), turnover articles did not appear again until the 1960s and 1970s. These studies report predictive test validation for weighted application blanks (WAB; Buel, 1964; Cascio, 1976; Federico, Federico, & Lundquist, 1976; Schuh, 1967; Schwab & Oliver, 1974) and other selection tests (e.g., vocational interests, achievement motivation; Hines, 1973). During this renewal period, Schuh (1967) reviewed the accuracy of selection tests in predicting job tenure and concluded that WABs are most predictive because 19 of 21 studies showed that "some items in an applicant's personal history can be found to relate to tenure in most jobs" (p. 145). Given this endorsement, test validation research during this era largely focused on WABs (Federico et al., 1976). Whereas Schwab and Oliver (1974) disputed Schuh's validity conclusions, Cascio (1976) documented that WABs can have similar (moderate) predictive validity for Whites and minorities as well as mitigate adverse impact. Later work further attested to WABs' superior predictive efficacy over other selection tests (Hom & Griffeth, 1995). Yet narrative and quantitative reviews of early WAB tests overstated validity because findings were rarely cross-validated (Schwab & Oliver, 1974) and WAB studies often inflated turnover variance by creating equal-sized high and low-tenure comparison subsamples (i.e., generating artifactual 50% quit rate; e.g., Minor, 1958).

The Centrality of Job Satisfaction and Organizational Commitment

Later, scholars began exploring attitudinal responses to workplace conditions (Hulin, 1966, 1968; Weitz & Nuchols, 1955) or perceptions of those conditions (Fleishman & Harris, 1962; Hellriegel & White, 1973; Karp & Nickson, 1973) as prime turnover movers. Although Brayfield and Crockett (1955) previously summarized findings on relationships between job attitudes and turnover, Weitz and Nuchols (1955) authored the first *JAP* paper using a predictive design and statistical tests to establish a negative job dissatisfaction-job survival relationship, yet their criterion also included involuntary terminations. Extending this test, Hulin (1966) introduced methodological features that later became hallmarks of the "standard research design" (Steel, 2002)—namely, (a) using psychometrically sound job satisfaction measures (Smith, Kendall, & Hulin, 1969), (b) employing a prospective research design to strengthen internal validity, (c) assessing voluntary quits rather than all forms of leaving, and (d) focusing on individual-level rather than aggregate-level relationships (Brayfield & Crockett, 1955). Using a quasi-experiment, Hulin (1968, p.125) later concluded that a "company program initiated in 1964 brought about an increase in job satisfaction . . . and that this increase led to a reduction in turnover in 1966."

Early investigations further reported that leavers more negatively perceive leaders (e.g., authoritarian, inconsiderate; Fleishman & Harris, 1962; Ley, 1966) and proximal environmental conditions (e.g., pay, shift work, performance reviews, underutilized capacity and talents; Hellriegel & White, 1973) than do stayers. Although less influential than Hulin's landmark work, these studies shaped future

Table 1
Key Contributions of Each Epoch of Turnover Research

Birth of Turnover Research
Recognition of Turnover Costs
Incipient Inquiry into Turnover Causes
Formative Years of Turnover Research
Predictive Test Validation—WABs
Centrality of Job Satisfaction and Organizational Commitment
Realistic Job Previews
Standard Research Design
Foundational Turnover Models
March-Simon Foundational Constructs: Job Satisfaction and Job Alternatives
Mobley, 1977 Model: Intermediate Linkages between Job Satisfaction and Turnover
Comprehensive Taxonomies of Turnover Causes
Rational Decision-Making: Job Comparisons based on Subjective Expected Utility
Normal Science: Theory Testing and Refinement
Alternative Intermediate Linkages between Job Satisfaction and Turnover
Theoretical Refinements of Price-Mobley Models
Expanded Set of Causal Antecedents: Job Performance, Organizational Commitment, Labor Market Features
Multiple Pathways to Leave, including Impulsive Quits
Alternative Responses besides Quitting
Hobos Drift from Job to Job
Functional Turnover: Recognition that Turnover is not Always Bad
The Counter Revolution: The Unfolding Model
Introduction of "Shocks"–Critical Events Prompting Thoughts of Leaving–as Key Turnover Driver
Identify Multiple Turnover Paths: Script-Based, Job-Offer, Affect-Based Leaving
Image Compatibility as Basis for Rapid Job Comparisons
Turnover Speed–Leavers Prompted by Shocks Leave Quicker than Dissatisfied Leavers
Pioneered Qualitative Methodology for Theory-Testing
21st Century Theory and Research
Job Embeddedness–Identifying Job and Community Forces Embedding Incumbents
Embeddedness by Proxy - Family Embedded in Job or Community
Other Embeddedness Forms: Occupational and Expatriate Embeddedness
Evolutionary Job Search Process–Dynamic Learning as Job Seekers Better Understand Labor Markets
Employee-Organizational Relationships and Human Resource Management Systems as Influences on Collective Turnover
Different Effects of Human Resource Management Practices on Good-Performer vs. Poor-Performer Turnover
Relationships between Collective Turnover and Organizational Performance

Note. WABs = weighted application blanks.

theorizing by highlighting broad environmental categories of turnover causes that comprehensive formulations later adopted (cf. Mobley, Griffeth, Hand, & Meglino, 1979; Price, 1977; Price & Mueller, 1981). Inspired by growing beliefs that dissatisfying work features (e.g., "monotony of modern factory labor"; Eberle, 1919, p. 313) induce leaving (Hulin, 1966, 1968), several scholars applied broader theories of work motivation or job attitudes—notably, motivator-hygiene (e.g., Karp & Nickson, 1973), motivational needs (e.g., Hines, 1973), equity (e.g., Dittrich & Carrell, 1979), expectancy (e.g., Mitchell & Albright, 1972), and reasoned action (e.g., Newman, 1974)—to explain leaving.

Realistic Job Previews

A third line of inquiry stemmed from rising awareness that effective recruitment and new hire assimilation can improve retention. Weitz (1956) furnished new hires with a booklet about insurance agent work and showed that this "realistic job preview" (RJP) boosted retention, a pioneering finding later replicated by Farr, O'Leary, and Bartlett (1973), who used work samples to reduce quits among sewing machine operators. These initial tests motivated a vast literature on RJP media, mechanisms, and moderators (Earnest, Allen, & Landis, 2011; Griffeth & Hom, 2001; Wanous, 1973). Though less influential, other articles demonstrated how orienting newcomers (Rosen & Turner, 1971) and recruiting them from certain sources (e.g., employee referrals; Gannon, 1971) curbed attrition.

Methodological Contribution: The Standard Research Design

Early turnover studies were beset with designs that included retrospective collection of predictors (e.g., early WABs) or criteria (e.g., recalled leaving; see Bills, 1925, for an exception). These flawed designs eventually gave way to the collection of reliable predictors at time one and subsequent collection of individual turnover data at a later point (otherwise known as the "standard research design," often attributed to Hulin, 1966, 1968).

Foundational Models by James March, Herbert Simon, William Mobley, and James Price (ca. 1958 to 1983)

March and Simon's (1958) inaugural theory of voluntary turnover was a paradigmatic shift (in the Thomas Kuhn sense) away from the prior stream of primarily atheoretical research. Yet this

revolution was delayed until publications by Mobley (1977; Mobley, Horner, & Hollingsworth, 1978) and Price (1977; Price & Mueller, 1981) who adopted March and Simon's (1958) central constructs—movement desirability and ease (defining them as job satisfaction and perceived job opportunities, respectively)—as cornerstones for more complex turnover models. In the most influential single paper on turnover, Mobley (1977) elaborated a *process* model of *how* dissatisfaction evolves into turnover. He theorized a linear sequence: dissatisfaction → thoughts of quitting → evaluation of subjective expected utility (SEU) of job search and costs of quitting → search intentions → evaluation of alternatives → comparison of alternatives and present job → quit intentions → quits.

Later, Mobley et al.'s (1979) ground-breaking *content* model specified a large array of distal causes to clarify *why* people quit (e.g., disagreeable job features underlying job dissatisfaction, desirable attributes of alternative jobs). They introduced SEUs of the present job and alternatives which, along with job satisfaction, constitute proximal antecedents of search and quit intentions and mediate the impact of distal causes. Like prior scholars (Mitchell & Albright, 1972), expectancy theory was central to Mobley et al.'s (1979) theorizing. They argued that employees may stay in bad jobs because they expect eventual positive utility (e.g., promotions, desirable transfers), whereas employees may leave good jobs because they expect higher utility from other employment (performing a rational cost-benefit analysis to compare their job to alternatives). They further recognized that *nonwork* values and consequences of leaving moderate how job satisfaction and SEUs of the current job and alternatives underpin turnover.

Informed by a comprehensive review of scholarly writings (canvassing disciplines beyond management and psychology), Price (1977; Price & Mueller, 1981, 1986) articulated a broad range of turnover determinants. Capitalizing on his sociology background, Price's theories captured not only workplace (e.g., integration, pay) and labor market (job opportunity) causes but also community (kinship responsibility) and occupational (professionalism) drivers. Although specifying job satisfaction or quit intentions as mediating between environmental antecedents and turnover, Price's (2001) models nonetheless highlighted turnover *content* more than turnover *process*. All the same, his theories emphasized key environmental drivers (revealed by his 1977 review) rather than attitudinal causes (which are not isomorphic; Weitz & Nuchols, 1955), yielding practical models identifying what managers can leverage to reduce turnover. His promulgation of objective environmental attributes (though he often used perceptual indices) also foreshadowed modern inquiry into external influences such as social cues (Felps et al., 2009), social networks (Feeley, Hwang, & Barnett, 2008), and community or family embeddedness (Mitchell & Lee, 2001; Ramesh & Gelfand, 2010).

Normal Science: Theory Testing and Refinement (ca. 1977 to 2012)

Empirical Directions

Unlike March and Simon (1958), Mobley and Price empirically tested their models, thereby promoting the March-Simon foundation and the standard research design for theory validation (Steel, 2002). Their models and methodology dominated turnover theory and research for years to come, though some scholars tested Fishbein and Ajzen's (1975) theory of reasoned action or its variants (Hom & Hulin, 1981). Mobley et al.'s (1978) initial testing evoked a plethora of additional tests (Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Lee, 1988). Empirical findings, in toto, contradicted Mobley's linear progression of mediating processes and suggested alternative structural configurations (Hom & Griffeth, 1991; Hom & Kinicki, 2001). All the same, Mobley's (1977) constructs (and measures, Hom & Griffeth, 1991; Mobley et al., 1978), if not his original causal sequence, survive in modern theory and work (Lee & Mitchell, 1994; Lee, Mitchell, Holtom, McDaniel, & Hill, 1999; Lee, Mitchell, Wise, & Fireman, 1996).

Further, Mobley (1977) promulgated job search and perceived alternatives as central constructs for explaining turnover, spawning independent research on their conceptualization and operationalization (Blau, 1994; Steel & Griffeth, 1989). Although Kraut (1975) first showed that quit intentions can foreshadow leaving, Mobley's theorizing firmly implanted this construct into turnover theory, claiming that such intentions represent the most proximal—and strongest—turnover antecedent (realizing that its predictive efficacy depends on time lag and measurement specificity). Over the years, his supposition has been upheld (Steel & Ovalle, 1984) and quit intentions (or their variant: withdrawal cognitions; Hom & Griffeth, 1991) remain essential in virtually all turnover formulations (e.g., Hom, Mitchell, Lee, & Griffeth, 2012; Price & Mueller, 1986). Given its predictive superiority (Griffeth et al., 2000; Rubenstein et al., 2015), turnover intentions have served as a surrogate or proxy for turnover when quit data are unavailable (Jiang, Liu, McKay, Lee, & Mitchell, 2012). Further, Mobley et al.'s (1979) expectancy framework for elucidating how employees compare alternatives (Hom & Kinicki, 2001) and estimate future career prospects ("calculative" forces; Ballinger, Lehman, & Schoorman, 2010; Maertz & Campion, 2004) persists in present-day thought, though the ubiquity of rational SEU decision-making has increasingly been disputed (Lee & Mitchell, 1994). Finally, Mobley et al.'s (1979) provisional ideas about "nonwork" influences resurfaced as more specific constructs as work-family conflict (i.e., employees opt out of paid employment to care for children; Hom & Kinicki, 2001) and "family embeddedness" (i.e., employees stay to avoid uprooting children or depriving families of corporate benefits; Feldman, Ng, & Vogel, 2012; Ramesh & Gelfand, 2010).

Similarly, Price and Mueller's (1981, 1986) theories have undergone extensive evaluation (Gaertner, 1999; Kim, Price, Mueller, & Watson, 1996). Empirical tests have largely, but not uniformly, affirmed theorized model paths (methods-related factors may explain deficiencies; cf., Gaertner, 1999), yet studies indicate that the original structural networks were oversimplified. Nonetheless, research on the Price-Mueller models established that most theorized explanatory constructs play some role in the termination process, especially their specification of workplace antecedents of job satisfaction (Gaertner, 1999).

In particular, Price and Mueller's "kinship responsibilities" construct advanced turnover understanding, which historically downplayed or neglected family influences on decisions to stay or leave. Standard theory (March & Simon, 1958) cannot readily account for family causes given the prominence accorded to job satisfaction and job alternatives (Abelson, 1987; Barrick & Zimmerman,

2005). Price and Mueller (1981, 1986) thus conceived how kinship ties can deter turnover, which they captured with questions about number of children, marital status, number of relatives residing nearby, and the like (Blegen, Mueller, & Price, 1988). This construct foretold—if not directly shaped—subsequent inquiries into how families can initiate or impede quits, such as exiting for full-time elder care (Hom & Kinicki, 2001) or remaining to avoid loss of health benefits or first-rate schools for children (Feldman et al., 2012; Ramesh & Gelfand, 2010). Finally, Price and Mueller's painstaking construction and validation of predictor measures contrasts with customary research practices of using ad hoc measures of unknown validity.

Later Theoretical Descendants

The Price and Mobley models spurred many empirical studies but also major conceptual developments, refining or extending their core tenets (Steel, 2002). Revisiting Mobley's (1977) model, Hom et al. (Hom & Griffeth, 1991; Hom & Kinicki, 2001) thus proposed (and verified) an alternative structural network of relationships among his constructs. Critiquing the Mobley and Price-Mueller models, Steers and Mowday (1981) formulated a more comprehensive turnover process that (a) added new antecedents (notably, performance, other job attitudes), (b) identified moderators (e.g., nonwork causes, job search success), (c) explicated other ways to manage dissatisfaction besides quitting (e.g., change the situation, withdraw in other ways, cognitively reevaluate the job more favorably), (d) outlined feedback loops (e.g., dissatisfaction may prompt attempts to improve the job and if successful, upgrade one's attitudes), and (e) specified multiple turnover routes (e.g., some employees quit without job offers, while others follow a "conventional path" by acquiring job offers before leaving).

Although rarely tested in its entirety (Lee & Mowday, 1987), Steers and Mowday's (1981) innovative constructs and pathways nevertheless have had profound impact. To illustrate, job performance is a prime explanatory construct in Jackofsky's (1984) pioneering model of the performance-turnover relationship (Sturman, Shao, & Katz, 2012) and various attitudinal models of turnover (Hom & Griffeth, 1995; Trevor, 2001). Moreover, researchers later established that job opportunity moderates how attitudes and quit intentions affect turnover (Carsten & Spector, 1987; Hom et al., 1992), amplifying their effects when employees can easily change jobs (Steers & Mowday, 1981). Subsequently, other scholars came to realize that dissatisfied incumbents can respond in other ways, such as avoiding work or reducing organizational contributions, before or besides leaving (Hom & Kinicki, 2001; Hulin, Roznowski, & Hachiya, 1985). Finally, contemporary investigations increasingly acknowledge alternative turnover paths other than the standard job-search → job offers → turnover route and impulsive quits (e.g., Lee, Gerhart, Weller, & Trevor, 2008; Lee & Mitchell, 1994; Maertz & Campion, 2004).

To resolve a lingering question, Hulin et al. (1985) sought to explain why unemployment rates more accurately predict turnover than do perceived alternatives (Steel & Griffeth, 1989). They identified a workforce segment peripherally attached to the labor market and whose quit behaviors are poorly explained by conventional models. Calling them "hobos," these individuals freely drift from job to job, and may, when dissatisfied or bored, exit the labor market periodically to pursue more pleasurable or less stressful avocations. For them, the complex cognitive processes envisioned in standard turnover models (e.g., systematic search and rational analysis of jobs) are irrelevant; rather dissatisfaction (or wanderlust) translates *directly* into quits. Later researchers began identifying hobos (Judge & Watanabe, 1995; Woo, 2011) or spontaneous turnover paths that do not involve deliberate SEU calculations of the job or alternatives (e.g., script-based leaving, impulsive quits, or labor market exits; Lee et al., 1996; Lee et al., 1999; Maertz & Campion, 2004).

Contesting orthodoxy (cf. Price & Mueller, 1981), Hulin et al. (1985) further argued that employees do not quit because they surmise job availability from local unemployment statistics. Rather, employees leave when they actually secure job offers. This astute observation coincided with later findings that many leavers do not seek jobs *before* leaving because they instead receive unsolicited job offers (a "shock," Lee et al., 1996; Lee et al., 1999) or are highly confident about obtaining jobs (after leaving) due to bountiful job opportunities in their field (e.g., nursing; Hom & Griffeth, 1991). That such turnover occurs more commonly (especially in high-tech or professional services industries) than historically presumed is also suggested by strategic management research on employee poaching (Agarwal et al., 2009; Gardner, 2005).

Hulin et al. (1985) additionally clarified that dissatisfaction does not inevitably culminate in leaving by noting that dissatisfied incumbents may lower job inputs (leading to psychological withdrawal) or improve their circumstances (via promotion or unionization) rather than leave (with or without job offers in hand). Though posited earlier (Mobley, 1977; Steers & Mowday, 1981), Hulin et al.'s theory formally recognizes that leaving is one among many ways to cope with dissatisfaction, integrating insights from work adaptation theory (Rossé & Hulin, 1985). Later authors expanded the response taxonomy to include work withdrawal and (scarce) organizational citizenship as turnover alternatives or predictors (Chen, Hui, & Sego, 1998; Hulin, 1991), which may allow time for dissatisfying working conditions to ameliorate (e.g., promotions or transfers; Mobley et al., 1979). Hulin et al.'s framework thus paved the way for recent interest in misbehaviors by incumbents trapped in displeasing or poor-fitting jobs (e.g., continuance-committed employees or reluctant stayers; Hom et al., 2012).

Lyman Porter's Seminal Contributions

Lyman Porter proposed several key constructs that resonate in the turnover literature today. Specifically, Porter and Steers' (1973) met expectations theory asserts that job satisfaction and retention hinge on how closely a job fulfills employees' initial job expectations. Their model has since become a central theory of job satisfaction (Wanous, Poland, Premack, & Davis, 1992; but, see Irving & Meyer, 1994, for an alternative view) and stimulated RJP theory and research (Earnest et al., 2011). Moreover, Porter and his protégés (Dalton, Krackhardt, & Porter, 1981) introduced "functional turnover"—whereby the loss of surplus, low-quality, or costly labor can enhance organizational effectiveness. Whereas scholars and practitioners historically focused on turnover *rates*, Porter urged scrutiny of *who* quits given that high talent or performer turnover most harms firms. This conceptualization challenged the assumption that turnover was always dysfunctional and

motivated lasting inquiry into the directionality and form of the performance-turnover relationship (McEvoy & Cascio, 1987). Continuing today, this research stream showed how the performance-turnover relationship depends on employee performance or social capital value (Shaw, 2015; Shaw, Duffy, Johnson, & Lockhart, 2005; Shaw, Park, & Kim, 2013; Trevor, 2001), certain contingencies (e.g., reward bases, pay growth, promotions, joblessness; Hom et al., 2008; Nyberg, 2010; Trevor, Gerhart, & Boudreau, 1997; Shaw, 2015), temporal aspects of performance (Harrison, Virick, & William, 1996; Sturman & Trevor, 2001), and cultural values (Sturman et al., 2012). Further, Porter's initial rethinking about the nature of the turnover criterion portended ensuing development of utility models that estimate turnover's *true* costs (Cascio, 1982) and the value of turnover reduction programs (Boudreau & Berger, 1985).

Porter and associates also conceived a new attitude—namely, organizational commitment—that can explain unique—if not more—turnover variance than do job satisfaction (Porter, Crampon, & Smith, 1976; Porter, Steers, Mowday, & Boulian, 1974). They argued that turnover implies the repudiation of organizational membership, not necessarily job duties that can be assumed elsewhere. Ultimately, this early work evolved into a separate avenue of research on commitment's entire nomological network, including its impact on criteria besides turnover (Mathieu & Zajac, 1990; Mowday, Porter, & Steers, 1982). Scholars later expanded Porter's conceptualization to include distinct commitment bases (e.g., *want to stay* vs. *have to stay*) or targets (commit to superiors, teammates, etc.; Meyer and Allen [1997]), although Klein, Molloy, and Brinsfield (2012) argued for a unified, general definition ("dedication to and responsibility for a particular target," p. 137). Regardless of definition, commitment is clearly inversely related to turnover and explains different portions of turnover variance than do job satisfaction (Hom & Griffeth, 1995; Klein, Cooper, Molloy, & Swanson, 2014). Commitment scholars also first addressed why employees stay, predating the 21st century preoccupation with job embeddedness (Mitchell & Lee, 2001), designed to complement prevailing accounts of why employees leave.

Finally, Krackhardt and Porter (1985, 1986) pioneered social network analysis to elucidate how social relationships affect quit propensity. Moving beyond conventional views of turnover as independent events wholly based on individuals' decisions, Krackhardt and Porter (1985) observed a "snowball effect" in which occupants of similar structural positions in communication networks often quit in clusters. Assessing strength of network ties, Krackhardt and Porter (1986) next showed that employees whose close contacts quit tend to form positive job attitudes, presumably to rationalize why they remain when friends exit. Although their impact has been overdue, these findings foreshadowed mounting demonstrations that employees remain when they have strong or interconnected network ties (Feeley et al., 2008; Hom & Xiao, 2011; Mossholder, Settoon, & Henagan, 2005) or leave when their ties end (Felps et al., 2009).

Methodological Contributions: Beyond Ordinary Least Squares Regression

Because turnover researchers deal with binary dependent variables, they understood early on (e.g., late 1970s to early 1980s) that ordinary least squares (OLS) regression is inappropriate for dichotomous outcomes (e.g., residual terms from the turnover variable are not normally distributed) and pursued alternative, better-suited analytical methods. For example, Morita, Lee, and Mowday (1989) advocated calculating survival and hazard functions and corresponding statistics (e.g., log rank statistics) to better describe the evolving nature of turnover. Huselid and Day (1991) showed the superiority of logistic over OLS regression in turnover studies, while Hom and Griffeth (1991) demonstrated that structural equation modeling (SEM) more fully tests increasingly complicated path models descended from March and Simon's (1958) theory than does OLS regression (e.g., Lee, 1988). Finally, Morita, Lee, and Mowday (1993) showed the superiority of Cox regression (a.k.a., proportional hazards models) over OLS and logistic regression *if* data on the time to employee departures are available or collected.

During these early years of intense empirical testing, investigators increasingly sought to explain more variance in turnover—often indexed R^2 in OLS—by expanding predictor sets (Lee & Mowday, 1987; Price & Mueller, 1981). This index thus became a standard for judging turnover theories and progress toward predicting turnover (Maertz & Campion, 1998; Lee & Mitchell, 1994; Mobley et al., 1979). Yet later turnover scholars began deemphasizing R^2 once they abandoned OLS (though occasionally interpreting analogous but not equivalent indices from logistic or Cox regression) and recognized that the accuracy of a given set of antecedents for predicting turnover depends on factors outside the scope of the theory being tested, such as turnover base rate, measurement correspondence, unemployment rates, and time lag (Hom et al., 1992; Steel & Griffeth, 1989; Steel & Ovalle, 1984). Further, SEM users focused on structural networks among turnover antecedents—a hallmark of process-oriented models that specify elaborate mediating mechanisms (e.g., Mobley, 1977; Steers & Mowday, 1981). They thus primarily interpreted omnibus model fit indices (and parameter estimates) generated by SEM that assess the validity of structural paths among turnover causes (including a priori specified null paths; Hom et al., 1992; Hom & Griffeth, 1991). In short, SEM users became more interested in explaining *covariance*s among explanatory constructs than variance in turnover.

The Counter Revolution: The Unfolding Model (ca. 1994 to 2000)

Some ideas are so powerful, intuitive, and focused that they can stall or hamper the emergence of novel ideas and research. The March and Simon (1958) model and Price-Mobley derivatives fall into this category as they seek to maximally explain a single behavior. As our review noted, their theories profoundly shaped turnover theory and research. By the early 1990s, turnover research nonetheless entered a "fallow" period (O'Reilly, 1991) where scholars made incremental theoretical refinements or extended those well-researched models (Steel, 2002). Responding to O'Reilly's (1991) remark about the lack of intellectual excitement in turnover research, Lee and Mitchell (1994) put forth a radically new turnover theory known as the "unfolding model," challenging the prevailing paradigm. Departing from March and Simon (1958), they disputed three assumptions underlying their view—notably, (a) job dissatisfaction is a paramount turnover cause, (b) dissatisfied employees seek and leave for alternative (better) jobs, and (c)

prospective leavers compare alternatives to their current job based on a rational calculation of their SEUs. To formulate a more valid and encompassing theory, they introduced various novel constructs, notably, "shocks" or jarring events (including external events) that prompt thoughts about leaving and drive alternative paths to turnover. Their model specifies four distinct turnover paths, including a conventional affect-initiated path (No. 4) in which dissatisfied employees quit after procuring job offers (e.g., Hom & Griffeth, 1991). Lee and Mitchell, however, envisioned that shocks (of different types) drive other paths. In one path (No. 1), some shocks activate a preexisting plan for leaving (*matching script*), inducing turnover (e.g., a woman quits once she becomes pregnant [the shock] because of preexisting plans to raise a child full time). For another path (No. 2), negative job shocks violate employees' values, goals, or goal strategies (*image violations*, such as a boss pressuring a subordinate to commit a crime) and thus prompt them to reconsider their attachment to the company. Unsolicited job offers (a shock) induces a third path (No. 3), whereby employees compare offers to their current job and even seek additional jobs for further comparisons. In this path, one first quickly judges alternative jobs (unsolicited offers and those from a search) for compatibility with personal values or goals (*image compatibility*), screens out incompatible jobs, and then calculates SEUs for the feasible set of job offers (and present job). Echoing Hulin et al. (1985), Lee and Mitchell also upended traditional viewpoints by realizing that leavers do not always quit for other jobs. Rather, some Path 1 leavers exit the workforce for full-time schooling or stay-at-home parenting.

Current Scholarship on the Unfolding Model

The unfolding model sparked many tests affirming its validity as well as radically reshaping understanding of turnover (Holtom, Mitchell, Lee, & Eberly, 2008). The unfolding model or its key constructs (notably, script-based quits and shocks) have received increasing endorsement by scholars and practitioners, becoming *the* dominant turnover perspective today (Hom, 2011). Equally important, Lee and his colleagues (1996, 1999) pioneered qualitative methodology for validating turnover models. Based on interviews with leavers, they classified turnover cases into one of their turnover paths based on pattern matching. They determined that the *majority* of leavers followed one of four theorized paths, a finding often borne out by later investigations (Holtom et al., 2008). Accumulated evidence further concludes that shocks drive turnover more so than dissatisfaction (Holtom et al., 2008). Lee et al. (1999) further examined how turnover paths vary in the speed by which leavers first decide to leave and when they leave, finding that shock-driven paths occur more quickly than affect-driven paths.

Current scholarship extends or refines the unfolding model. In particular, Mitchell and Lee (2001) combined this model with job embeddedness theory (see below), positing that embedding forces can buffer against shocks (Burton, Holtom, Sablynski, Mitchell, & Lee, 2010). Next, Maertz and Campion (2004) conceived an integrative framework outlining both *how* and *why* people quit. They identified different processes for four leaver types ("decision types") based on different motivational forces for leaving (impetuses for leaving, such as negative affect, perceived alternatives, or normative pressures). Example process types are "impulsive quitters" (those leaving without jobs in hand) and "preplanned quitters" (those leaving with a definite plan). Their decision types correspond to Lee and Mitchell's (1994) turnover paths but are not identical. To illustrate, Maertz and Campion (2004) differentiate between preplanned quitters (quitting when a specific time or event occurs) and conditional quitters (quitting if an *uncertain* event happens in the future); however, the unfolding model treats both types as Path 1 turnover. Finally, Lee and Mitchell's (1994) theory and methodology have been adapted to account for understudied forms of turnover, such as "boomerang employees" who quit but later return (Shipp, Furst-Holloway, Harris, & Rosen, 2014).

The unfolding model is a ground-breaking theoretical achievement in the annals of turnover research, identifying novel constructs and processes that deepen insight into why and how employees quit. Further, predictive tests sustain key model tenets (e.g., shocks, multiple turnover paths; Kammeyer-Mueller, Wanberg, Glomb, & Ahlburg, 2005; Lee et al., 2008). On the other hand, the unfolding model has yet to be tested in its entirety with predictive research designs. Its corroboration rests primarily on qualitative findings based on leavers' retrospective reports, which can suffer from recall errors or self-serving biases (Hom, 2011).

Methodological Contributions: Qualitative Research

Almost 20 ago, Lee and colleagues (1996) demonstrated how qualitative design can be deployed for testing complex models, such as the unfolding model. This first qualitative study illustrated the power of qualitative methodology for model testing and initiated innumerable replications (Holtom et al., 2008; Lee et al., 1999). Lee's (1999) book further popularized this methodology in organizational research. Over the years, extensive qualitative tests on the unfolding model helped legitimize this approach for both theory testing (Maertz & Campion, 2004) and grounded theory development (Rothausen, Henderson, Arnold, & Malshe, 2015).

21st Century Theory and Research (ca. 2000 to present)

Job Embeddedness Theory

With the advent of the new century, the fertile and "exciting" scholarship on turnover that began with the unfolding model continued its forward progress. Again leading the way, Mitchell, Holtom, Lee, Sablynski, and Erez (2001) originated job embeddedness to elucidate why people *stay* and thus supplement the age-old inquiry into why people leave. Although the act of leaving is merely the opposite of staying, they contend that motives for leaving and staying are not necessarily polar opposites. That is, what induces someone to leave (e.g., unfair or low pay) may differ from what induces that person to stay (e.g., training opportunities). To delineate the latter motives, Mitchell et al. envisioned a causal-indicator construct (or formative measurement model) comprising on-the-job forces for staying—namely, job fit, links, and sacrifices—as well as corresponding off-the-job forces (i.e., community fit, links, and sacrifices). Although some on-the-job forces (e.g., job sacrifices; Meyer & Allen, 1997) resemble prior constructs (e.g., costs of turnover; Mobley, 1977), community embeddedness captures turnover deterrents long neglected by prevailing thought

(e.g., nonwork influences; Mobley et al., 1979). In a short time span, embeddedness research has mushroomed and clearly established that job embeddedness explains additional variance in turnover beyond that explained by traditional determinants, such as job attitudes and perceived alternatives (Jiang et al., 2012; Lee, Burch, & Mitchell, 2014).

Embeddedness theory also stimulated theoretical generalizations to elucidate different forms of staying (Kiazad, Holtom, Hom, & Newman, 2015). Extending this theory cross-culturally, Ramesh and Gelfand (2010) thus validated the basic model in India but also advanced "family embeddedness," comprising a family's pride in a family member's employment in a company, the benefits a family derives from the company (e.g., health insurance), and family ties to company personnel. Unlike individualists who stay to fulfill self-interests, they claimed that Indian collectivists often join and remain in organizations to satisfy family needs, status, or obligations. In support, they found that family embeddedness explains unique variance in turnover in India but also in America. Pointing out the narrow scope of community embeddedness, Feldman et al. (2012) similarly conceptualize that family embeddedness in the *community* also matters—even to Americans—who may stay in a job or community they dislike because relocating would disrupt spousal careers or children's education. Mitchell et al.'s (2001) original view of community embeddedness thus underrepresents how families can embed employees (though their community embeddedness index taps employees' marital status and number of relatives living nearby) when families too are embedded in the organization or community (which Feldman et al. [2012] term "embeddedness by proxy").

Moreover, Feldman and Ng (2007) conceived "occupational embeddedness," identifying specific forces relevant to occupations, such as industry contacts, involvement in professional societies, compatibility with occupational demands and rewards, human capital investments, and occupational status. This embeddedness form does not necessarily promote loyalty to organizations as people embedded in professional fields may quit to practice or hone their professional skills elsewhere. Further, Tharenou and Caulfield (2010) adapted Mitchell and Lee's (2001) theory to explain why expatriates would stay abroad instead of repatriating, noting that they can become embedded in overseas assignments if they derive career benefits there and fit the foreign culture. Finally, Reiche, Kraimer, and Harzing (2011) established that inpatriates (i.e., foreign nationals from offshore subsidiaries assigned to corporate headquarters [HQ]) who fit the HQ, have trusting HQ ties, and would give up career prospects available from HQ if they leave, become embedded abroad and thus are less likely to return home.

Besides applying Mitchell et al.'s (2001) theory to other forms of staying, scholars explored indirect embeddedness effects. In particular, studies report that job embeddedness can attenuate shocks' deleterious consequences (e.g., higher quit intentions; Burton et al., 2010; Mitchell & Lee, 2001), while showing that employees whose colleagues or superiors are embedded are less quit-prone (Felps et al., 2009; Ng & Feldman, 2012). Apart from loyalty effects, Lee, Mitchell, Sablynski, Burton, and Holtom (2004) revealed that job embeddedness enhances job performance and organizational citizenship, unifying two distinct research traditions on employee decisions to perform and participate (March & Simon, 1958). While motivational and turnover theorists invoke different explanatory constructs for these decisions, Lee et al. (2004) observed that embedding forces underlying decisions to participate can shape decisions to perform, consistent with Meyer, Becker, and Vandenberghe's (2004) integration of commitment and motivational models to explain varied work behaviors, including leaving.

Although a large body of work identifies the benefits of job embeddedness, emerging research increasingly documents adverse effects. Specifically, Ng and Feldman (2010) noted declining social capital development among embedded incumbents, presumably because they had already amassed social contacts and felt less need to cultivate new ones. Ng and Feldman (2012) further documented that rising job embeddedness over time escalates work-family conflicts. Finally, Huysse-Gaytandjieva, Groot, and Pavlova (2013) described how the experience of being trapped in a dissatisfying job ("job lock") impairs employees' mental health.

The Evolutionary Job Search Process

To close a conspicuous gap in turnover theorizing, Steel (2002) elaborated the job search process, which has been underspecified by standard theories that assume that successful job pursuits enable employees to quit for better jobs (March & Simon, 1958; Mobley, 1977; Steers & Mowday, 1981). Going beyond oversimplified (or implicit) representations of job search in prevailing models (Mobley, 1977; Steers & Mowday, 1981), Steel (2002) put forth a multistage process through which employees move from passive scanning of the labor market to active solicitation of employers. His cybernetic theory described how job seekers progressively acquire more particularistic labor market information by selectively attending to certain information levels or sources and gaining feedback about job prospects and thus their employability. In support, he marshaled evidence that leavers' labor market perceptions better match labor market statistics (e.g., unemployment rates) than do stayers' perceptions, presumably because leavers actively pursue jobs and thus gather more valid labor market data. Steel (2002) also explained that individuals can exit without a job search when they have other income sources or receive unsolicited job offers, whereas others search to upgrade their current circumstances with counteroffers (not because they want to leave; Bretz, Boudreau, & Judge, 1994).

Reiterating Mobley (1982) 20 years later, Steel (2002) advocated abandoning the standard research design for a longitudinal design tracking cohorts over time and repeatedly gauging their labor-market perceptions, search intensity, and job-search success. This design can capture dynamic learning during job search, self-efficacy shifts, and dynamic relationships among job-search variables. In line with Steel's advice, recent panel studies using random coefficient modeling (RCM) find that job satisfaction's change trajectory explains additional variance in quit propensity beyond static satisfaction scores (Chen, Ployhart, Thomas, Anderson, & Bliese, 2011; Liu, Mitchell, Lee, Holtom, & Hinkin, 2012), upholding the time-honored claim that attitudinal shifts predate leaving (Hom & Griffeth, 1991; Hulin, 1966; Porter et al., 1976).

Steel's (2002) cybernetic formulation yielded invaluable insights into how employment searches impact leaving. Given its relative newness (and difficulty of implementing longitudinal research), his theory has yet to be fully tested. Recent panel research on job search among the unemployed nonetheless substantiate Steel's methodological prescriptions as the standard research de-

sign misses changes in job search intensity that often occur when (jobless) individuals seek work over long periods (Wanberg, Zhu, Kanfer, & Zhang, 2012; Wanberg, Zhu, & Van Hooft, 2010). Other scholarly work also sustained other propositions from Steel's theory—notably, some leavers quit without job offers in hand (due to impulsive quitting or unsolicited job offers; Maertz & Campion, 2004), whereas some incumbents solicit job offers to negotiate better pay or conditions from their employers (Boswell, Boudreau, & Dunford, 2004).

Turnover Rate and Collective Turnover Models

The 21st century also heralded significant scholarly attention to employee turnover at the group, team, work unit, and organizational levels. Whether described as turnover rates or *collective turnover*, such work represents a distinct and emerging area of focus (Hausknecht & Trevor, 2011; Shaw, 2011). Decades earlier, scholars understood the importance of collective turnover (e.g., Mueller & Price, 1989; Price, 1977), but empirical research was slow to materialize (Terborg & Lee, 1984, is a rare exception). Systematic scholarship on turnover rates appeared in the late 1990s and beyond (e.g., Miller, Hom, & Gomez-Mejia, 2001; Shaw, Delery, Jenkins, & Gupta, 1998) with the emerging recognition that individual-level turnover theories could not be vertically synthesized to account for all collective processes and outcomes (Hausknecht & Trevor, 2011). Studies in this domain have theorized and tested organizational turnover's antecedents (e.g., HRM practices, labor market conditions, collective attitudes), consequences (e.g., satisfaction, organizational performance), and boundary conditions of those effects (e.g., unit size, proportion of newcomers; Hausknecht et al., 2009; Shaw et al., 1998).

Regarding antecedents, many studies adopt an employee-organization relationship (EOR; Tsui, Pearce, Porter, & Tripoli, 1997) conceptual lens whereby employment relationships are based on two distinct continua: offered inducements (in the form of base pay, benefits, training, job security, and justice from employers) and expected contributions (in the form of higher performance, organizational citizenship, commitment by employees; e.g., Hom et al., 2009). To illustrate, "mutual investment" EOR represents companies furnishing ample inducements to employees but expecting them to reciprocate with high and broad organizational contributions. Other research adopts a single continuum approach and examines how HRM investments (under various labels such as "high involvement," "high commitment," or "high performance" systems; Arthur, 1994; Guthrie, 2001) affect turnover. These studies, in toto, generally show that HRM investments decrease turnover rates (Heavey et al., 2013).

Even so, overall correlations between HRM investments and turnover rates mask nuances tied to specific practices or bundles of similar practices (Shaw et al., 2009), which may exert conflicting effects (e.g., HRM inducement and investment vs. HRM expectation-enhancing practices). To illustrate, self-managing work teams promulgated in high-commitment HRM systems can reduce voluntary quits (by offering intrinsic and social rewards), but these systems' higher performance standards and reward contingencies also boost voluntary quits (due to greater work stress, work-family conflict, and income risks for meeting fixed living expenses; Batt & Colvin, 2011). Studies disclose differential relationships between these practices and overall turnover rates, but also with turnover patterns among good and poor performers (Shaw, 2015; Shaw et al., 2009; Shaw & Gupta, 2007). This inquiry further demonstrated that HRM practices reduce attrition via collective commitment (Gardner, Wright, & Moynihan, 2011), differentially affect quit and fire rates (Batt & Colvin, 2011), and lessen the effects of prior layoffs on quits (via embedding HRM practices; Trevor & Nyberg, 2008). Finally, the most thorough meta-analysis on antecedents of collective turnover to date identified many predictors besides HRM practices, such as climate, supervisory relations, and diversity (Heavey et al., 2013).

Concerning organizational consequences of turnover, and beginning with Fisher (1917b), scholars have speculated about how turnover affects organizational performance (Abelson & Baysinger, 1984; Mowday et al., 1982; Price, 1977; Shaw, 2011). Despite such longstanding conjecture, most studies historically scrutinized individual-level turnover effects (e.g., good performer quits, stayers' attitudes; Dalton et al., 1981; Krackhardt & Porter, 1985). When coupled with occasional pre1990s empirical tests (e.g., Mueller & Price, 1989; Terborg & Lee, 1984), a spate of recent primary studies and meta-analytic tests reveal stable negative associations between turnover rates and various dimensions of organizational performance (Hancock, Allen, Bosco, McDaniel, & Pierce, 2013; Heavey et al., 2013; Park & Shaw, 2013). Nonetheless, many of these correlations were derived from studies lacking a theoretical focus on turnover rates or collective turnover, which leaves ample opportunity for investigations that develop new theory (e.g., "turnover capacity," Hausknecht & Holwerda, 2013; "context-emergent turnover theory," Nyberg & Ployhart, 2013) and/or test existing or emerging models.

Regarding boundary conditions, and although some alternative findings exist, recent evidence supports an attenuated-U turnover-performance relationship, such that the linkage is strongly negative initially, but weakens at high turnover rates (Shaw, Duffy, et al., 2005; Shaw et al., 2013). Several studies explored mechanisms between turnover rates and organizational performance and/or moderators of these effects. Kacmar, Andrews, van Rooy, Steilberg, and Cerrone (2006) showed that high supervisory and crew turnover at fast-food restaurants lower store sales and profits by prolonging customer wait time (verifying mediation via worsening customer service). Shaw and colleagues (2005) examined a different type of dysfunctional turnover—those occupying central niches in workplace communication networks—and revealed how turnover severs coworkers' relationships, which thereby disrupts communication networks, undermines social capital, and ultimately reduces productivity. According to their findings, these patterns are most harmful when stable relationships and social exchange among employees exist—when store attrition is *low*. Call, Nyberg, Ployhart, and Weekley (2015) further sustained this logic by documenting that rising rates of collective turnover in retail stores most reduce performance in stores with low turnover. Finally, Hausknecht et al. (2009) showed that associations between quit rates and customer service quality were attenuated among smaller work units and those with smaller proportions of newcomers, factors theorized to reflect greater ability to navigate turnover-induced disruption. Consistent with conceptual propositions (e.g., Hausknecht & Holwerda, 2013), the findings demonstrate that turnover effects depend on "who remains" as well as "who leaves."

Methodological Contributions: Turnover Antecedents' Trajectories of Change

In response to recurring calls for longitudinal research (Mitchell & James, 2001; Mobley, 1982; Steel, 2002), Chen et al. (2011) and Liu et al. (2012) adopted a panel design and applied RCM to estimate how job satisfaction trajectories predict turnover. Of interest, Liu et al. increased explained variance from 5% to 43% by moving from static measures of satisfaction (i.e., individual and work group scores) to dynamic measures (i.e., changes in satisfaction among individuals and work groups). Using RCM, Sturman and Trevor (2001) similarly established that performance velocity explains additional turnover variance beyond static performance scores. Deploying latent growth modeling (controlling measurement errors and instability), Bentein, Vandenberghe, Vandenberg, and Stinglhamer (2005) showed that a declining trajectory for affective organizational commitment predicts ascending quit intentions.

Discussion

Looking Back

From the early days of applied research (Bills, 1925; Diemer, 1917; Douglas, 1918; Eberle, 1919) and informed speculation (Barnard, 1983), employee turnover has been a vital issue for management and applied psychology. Since March and Simon's (1958) theory and its elaboration by Mobley (1977) and Price (1977), theory-driven research is a proud hallmark of turnover scholarship and *JAP* publications. Over time, ever-more sophisticated and innovative theories of turnover prompted a corresponding search and adoption of more sophisticated research designs and statistics. As we reflect on the last 100 years, our knowledge has been cumulative—sometimes in a "normal and incremental" fashion but sometimes in a "disruptive and discontinuous" manner (Kuhn, 1963). In our view, applied psychologists have learned much and should be deservedly proud of their collective efforts (see Table 1 and Figure 1).

Looking Forward

We have highlighted promising new research directions throughout our review, (e.g., further testing and refinement of unfolding model and embeddedness theory, additional network-based investigations, formal tests of job search models), and build on those ideas to offer five broad areas in which researchers might advance turnover scholarship in the years to come.

1. Theorize and study change in turnover antecedents and consequences. Mitchell and James (2001) called for serious consideration of time, while Lee et al. (2014) recently renewed that call. Emerging research offers conceptual and empirical tools for researchers interested in taking time seriously. Chen et al. (2011) and Liu et al. (2012) show that whether one's job satisfaction is increasing or decreasing greatly enhances predictions of turnover intentions and behaviors over and beyond a static satisfaction measure. Besides satisfaction (and commitment and job embeddedness; Bentein et al., 2005; Ng & Feldman, 2012), the momentum for a host of common (e.g., job involvement, absenteeism) or less common (e.g., justice perceptions, perceived organizational support) antecedents might be studied. For instance, Hausknecht, Sturman, and Roberson (2011) found that "justice trajectories" predict quit intentions after controlling for current justice levels, suggesting that employees use past perceptions or experiences to forecast future workplace conditions. Addressing turnover outcomes instead, Call et al. (2015) estimated that a one standard deviation increase in a retail store's collective turnover shrinks its yearly profit by 8.9%! That said, inquiries into trajectories can meaningfully bolster understanding of turnover's etiology and consequences.

2. Investigate postturnover implications for employees and organizations. Until recently, scholars have almost always thought of turnover as the end point (i.e., the focal dependent variable). In an imaginative switch, however, Shipp and associates (2014) extend the unfolding model to theorize and test differences between employees who quit but are rehired (boomerangs) and those who do not return (alumni). Boomerangs were more likely than alumni to experience a negative *personal* shock and leave via Path 1 (but they do eventually return). In contrast, alumni were more likely than boomerangs to experience a negative *work* shock and job dissatisfaction, and thereby leave via Path 2 and 4a. In a related vein, Hom et al. (2012) encouraged explorations into "turnover destinations" to learn what drives decisions to pursue another job versus other destinations such as stay-at-home parenting or educational pursuits. These authors compel scholars to think beyond the usual view that quitting is the focal end state.

3. Study distinct forms of—and motivations for—leaving and staying mindsets. Turnover researchers historically strove to test new predictors (e.g., job embeddedness) using the standard research design (Steel, 2002). To balance the score, Hom et al. (2012) proposed Proximal Withdrawal States Theory (PWST) to argue for greater attention to proximal antecedents. By crossing two key antecedents—one's perceived control and preference for leaving or staying—Hom and associates identify employees who (a) want to leave and do ("enthusiastic leavers"), (b) want to leave but cannot ("reluctant stayers"), (c) want to stay and do ("enthusiastic stayers"), and (d) want to stay but cannot ("reluctant leavers"). Traditionally, turnover researchers have examined enthusiastic stayers and leavers, but have largely ignored reluctant stayers and leavers. As such, Hom et al. push our thinking toward a closer yet broader view of the phenomenon of interest (i.e., voluntary quits) as well as different forms of staying.

4. Expand turnover studies to better capture context. Investigations have moved away from a "one size fits all" view of turnover, favoring instead theories specifying the conditions under which particular factors are more or less important to quit decisions (or turnover rates) in a given setting. At the individual level, the unfolding model and PWST both reflect this more nuanced, context-rich focus on prediction and understanding. At the collective level, researchers stress the importance of examining contextual boundary conditions of antecedent-turnover and turnover-outcome relationships (Hausknecht & Trevor, 2011; Nyberg & Ployhart, 2013). Despite this theoretical shift, Allen et al. (2014) report that the majority of published empirical work scrutinizes direct effects. Clearly, researchers should delve into context-specific investigations of turnover (while continuing to focus on building parsimonious and generalizable theory). Indeed, some of the most impactful theories (e.g., unfolding model) emerged from

the recognition that contextual factors can shape the influence of turnover's antecedents.

5. Examine turnover management strategies and practices. Researchers and practitioners might partner on field research aimed at turnover control. Such studies are rare, yet Agarwal et al. (2009), for example, studied how firms deter scientists and engineers from leaving by aggressively protecting against patent infringements, while Gardner (2005) clarified how firms defend against poaching. Shapiro, Hom, Shen, and Agarwal (2016) theorized about how subordinates may "follow" leaders to other companies depriving source firms of their human and social capital. Scholars have yet to consider whether turnover holds implications for social mobility, both upward and downward (e.g., Class in America: Mobility, measured; Economist Magazine, Feb. 1, 2014). Relatedly, turnover may have different antecedents and consequences in different cultures (Ramesh & Gelfand, 2010) or developing economies (Hom & Xiao, 2011). Close collaborations between scholars and practitioners can ensure the relevance of research as this changing world of work unfolds—a prospect that seems promising given the rising availability of "big data" in organizations, the burgeoning support for internal workforce analytics teams, and the emergence of thought on how these developments might generate new opportunities to advance turnover theory and research (e.g., Hausknecht & Li, 2015).

Thinking Big (and Golden Opportunities)

Thinking big by thinking small. In the last 100 years, scholars most often theorized about large businesses (e.g., Boeing, Amazon), but research often occurs in much smaller organizations. It may be advisable to theorize and study what turnover means in nascent start-ups (e.g., prior to a prototype product often required to move beyond angel investors; a.k.a., still in "death valley"). In such small firms, for example, the departure of a few key people could well terminate the start-up. Do our 21st century theories apply to such firms and employees? We think not, but new theories should.

Thinking bigger. Our sweeping review finds that turnover scholars often theorize and study individuals, work groups or entire companies. What often gets forgotten, however, is the industry. Might turnover hold different meaning among "declining versus ascending industries" (e.g., coal vs. wind energy; brick & mortar vs. Internet retail)? Some industries are clearly more appealing to highly educated, specialized and paid "knowledge workers." We recommend that future theorists consider how different industries and their attributes affect turnover.

Thinking really big. Most theories are often applied to entire populations (e.g., satisfaction reduces turnover; embeddedness enmeshes employees), but what if turnover theories apply differentially across different ranges of employee populations? For example, might rational decision making models apply better with long-term, highly educated employees in stable industries than short-term, poorly educated employees in turbulent environments? Might satisfaction-based models rather than embeddedness theory better explain quits among fast food workers? After 100 years of scholarship, our knowledge may have advanced to the point at which we can (or should) theorize and test more fine-grained predictions, which in turn may hold greater value to practitioners and consumers of our research.

Practical Suggestions for Managing Turnover

Although practitioner articles have mostly vanished from leading journals, our review suggests some practical lessons. Employers can use validated selection procedures (e.g., biodata, personality, person-organizational fit) to screen out job applicants who might become prospective leavers. Employers should also pay special attention to on-boarding practices (including RJPs) as longstanding research has shown that most turnover occurs among new hires who face difficulty adjusting to the job. Organizations might monitor prominent causes underlying turnover (via surveys or personnel records), such as attitudinal trajectories (Liu et al., 2012) to foreshadow turnover or learn what (deteriorating) work conditions must be ameliorated to lessen potential turnover. Firms might also track turnover rate trajectories to project impending performance decrements (Call et al., 2015), use dashboards or scorecards to assess turnover costs, and capture data about *who leaves* (e.g., high performers, central actors in networks) and *where they go* (e.g., exit workforce, join competitors). Moreover, organizations might identify and assess the extent of reluctant staying and reluctant leaving (notably those due to external forces). While many firms assess job engagement (a symptom of reluctant stayers), they might also assess this mindset directly as other reasons besides poor job fit (e.g., poor organizational fit, abusive supervision) may occasion this state. Further, assessing reluctant leaving and its etiology (e.g., spousal relocation, unsolicited job offer) would help employers better prepare for future turnover (i.e., identify replacements beforehand) or how to counteract external forces for leaving (e.g., counter family pressures to leave by offering family benefits or decreasing work-family conflict by demanding less out-of-town travel).

Conclusion

In closing, this article shows that turnover research is dynamic and ever-changing. It had a dominant paradigm and is experiencing a paradigm shift. The topic's foci expanded from the individual to macro levels, from macro levels to cross levels, and from cross-sectional to predictive to panel designs. Looking forward, many new vistas remain to be explored. In our view, turnover is a healthy and vibrant area of theory and research. Constant improvements in theory and research are our legacy, our future, and our passion. Most important, such changes are embraced by turnover scholars themselves. In our judgment, "the best is yet to come."

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