If You've Got Leavin' on Your Mind: The Identification and Validation of Pre-Quitting Behaviors

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This study introduces the concept of pre-quitting behaviors (PQBs), which employees in the process of leaving an organization may unknowingly "leak" and others can observe and use to identify those at risk of turnover. We develop a theoretical framework that explains how and why turnover proclivity can be encoded into observable PQBs. Then, on the basis of input from employees who voluntarily left and their managers, we identify a range of PQBs that served as the basis for an initial measure of the behaviors. Analysis of data to assess the validity of inferences based on the measure revealed that PQBs predicted future voluntary turnover over and above established antecedents of this outcome. Overall, this study suggests that the psychological and behavioral processes that activate and facilitate voluntary turnover are manifest in observable behaviors and thus opens a new line of inquiry into the process of employee turnover.

Keywords: *turnover; quitting; behavioral cues; human capital; personality judgement*

Individuals routinely observe strangers and friends to make judgments about their character and predict their future behaviors. Categorizing individuals and predicting their behavior

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from observations of demeanor and appearance was an ancient topic of study when Aristotle wrote *Physiognomy* in the fifth century BCE (James, 1932). In recent years, research on social perception has demonstrated that judgments of individuals made from observations of their verbal and nonverbal behaviors can match judgments made by others and correlate with targets' self-reports of their personality (Ambady & Rosenthal, 1992; Funder, 1995). Further, present-day scholars have documented that behavioral cues can predict future behavior in the laboratory, on the job, and in daily life (Funder, 2012; Sparks, Burleigh, & Barclay, 2016).

A core tenet of modern inquiry into social perception is that individuals' patterns of behavior are a reflection of their dispositional attributes (Fiske & Taylor, 1991). Observations of these behaviors undergird observers' understanding of the traits and dispositions of those with whom they interact (Funder, 2012; Gifford, 1994). Scholars have relied on this tenet not only to ascertain people's enduring personality traits but also to identify their transient states (e.g., attitudes, behavioral intentions) and predict future behavior. For instance, a meta-analysis by DePaulo, Lindsay, Malone, Muhlenbruck, Charlton, and Cooper (2003) concluded that individuals telling lies inadvertently reveal their deception through behavioral cues that differentiate them from truthful individuals. Another line of research has shown that prior to participating in the Prisoner's Dilemma game, individuals unwittingly project their intention to cooperate with or defect against their partner (DeSteno et al., 2012; Sparks et al., 2016). Further, strangers, interacting with partners for a few minutes before the game, can accurately forecast how the latter will behave from their cooperation or defection cues. Evolutionary psychologists have found that people engaging in infidelity unknowingly exhibit behavioral cues that signal involvement with another partner (Shackelford & Buss, 1997). Finally, Gottman (2003) demonstrated that couples convey the strength of their marriage via behavioral cues that can be observed, decoded, and used to predict the likelihood of future divorce.

Thus, research from various areas suggests that the behavioral cues people emit reveal information about their dispositions and behavioral propensities. One area in which this framework has not been widely considered is to understand and predict employee turnover behavior. This is surprising given well-documented detrimental consequences of turnover by average and "star" performers (Call, Nyberg, & Thatcher, 2015), the benefits firms gain from hiring away employees from their rivals (Aime, Johnson, Ridge, & Hill, 2010; Mawdsley & Somaya, 2016), and the difficulty organizations face in finding and hiring equivalent or better replacements. Instead, turnover theory and research have tended to focus on traits (e.g., gender), attitudes (e.g., job satisfaction), cognitions (e.g., turnover intentions), events (e.g., outside offers to interview), and contexts (e.g., embeddedness in local communities) that induce employees to stay with or leave organizations (e.g., Hom, Mitchell, Lee, & Griffeth, 2012; Lee & Mitchell, 1994; Mitchell & Lee, 2001). Other than behavioral expressions of dissatisfaction, such as work avoidance (e.g., absences) and job search (Harrison, Newman, & Roth, 2006; Hulin, Rosnowski, & Hachiya, 1985), turnover research appears to have overlooked behaviors that may forecast future turnover.

We propose that employees in the process of leaving an organization unknowingly "leak" behaviors that managers and others can observe and that may predict future turnover. We call these *pre-quitting behaviors* (PQBs). We draw upon a theoretical framework that explains why and when judgments of other people's personality can be accurate (Funder, 1995; Gifford, 1994) to explain why the predisposition to voluntarily quit is encoded in leavers'

behaviors and how these behaviors may predict future turnover. We then use a nomination process and prototypicality analysis (Buss & Craik, 1983a) to identify behaviors employees emit prior to turnover. Next, we develop a measure of PQBs and use data from two independent samples to assess the underlying structure of the measure and evidence for its convergent and discriminant validity. Finally, we test the hypothesis that PQBs predict future leaving by assessing whether managers' reports of subordinates' PQBs correlate with voluntary turnover 13 months later.

Identifying and assessing the predictive power of PQBs is both theoretically and practically important. Theoretically, the role of behavioral cues in the turnover process has not been formally theorized or empirically modeled. We introduce PQBs as a new concept to be included in a broader theory of turnover. We hypothesize and demonstrate that PQBs carry information about turnover proclivity that can be used to predict future turnover. The present study also contributes to practice by providing organizations with a tool that could be used to identify (and possibly deter) employees who are in the process of leaving.

Literature Review and Hypothesis Development

Previous Research Relevant to Pre-Quitting Behaviors

Several researchers have suggested that employees contemplating and progressing toward quitting "leak" information that others can observe (Goffman, 1974; Melbin, 1961; Slichter, 1919). However, beyond these passing remarks, scant theoretical or empirical attention has been given to behaviors exiting employees may inadvertently emit that predict their departure. The closest we found were two examinations of employees' organizational citizenship behavior (OCB) as an antecedent of turnover. Bu, McKeen, and Shen (2011) found that declining OCBs were associated with increased turnover intentions. Similarly, Chen, Hui, and Sego (1998) found that managers' reports of employee OCBs predicted actual turnover. However, both studies focused on decreased performance of OCBs as a form of *intentional* organizational withdrawal and did not consider a wider array of leaked—both intentionally and unintentionally—PQBs.

We also note that research on employee withdrawal has indirectly examined behaviors emerging from employees moving toward departure. This work is grounded in a theoretical framework that suggests that declines in job satisfaction and organizational commitment lead to purposeful declines in individual effectiveness (Harrison et al., 2006; Hulin, 1991). For example, individuals experiencing negative job attitudes tend to reduce job effort, arrive late to work, take absences, or quit the organization altogether (Benson & Pond, 1987; Hanisch & Hulin, 1991; Rosse, 1988). In contrast, our framework suggests that PQBs consciously and inadvertently manifest from a broader set of turnover processes and are predictive of future voluntary turnover.

Personality Judgment Theory as a Basis for PQBs

The conceptual framework that explains how individuals evaluate the personality and disposition of others also provides a useful model for understanding PQBs. Models of personality judgment suggest a two-part process by which personality is deduced from observations of individuals' behavioral cues. The first step is *encoding*, whereby individuals' personality traits

are encoded into patterns of verbal and nonverbal behaviors (Buss & Craik, 1983b; Funder, 1995; Funder & Sneed, 1993; Gifford, 1994). The second part of the process is *decoding*, whereby observers notice and interpret the individual's behavior and make judgments about their personality (Funder, 1995; Gifford, 1994; Gifford & Hine, 1994).

Furthermore, Funder and colleagues identified two additional processes for personality judgments to be valid (e.g., Funder, 1995, 2012; Funder & Sneed, 1993). First, the relevant behavior must be available to observers. If observers do not regularly interact with the target, or if manifested actions are not readily observable, personality judgments will be inaccurate. Second, judges must utilize observed information correctly. Errors in memory, inconsistent weighting of information, skewed sampling of behaviors, and other factors can prevent observers from making accurate assessments about others (Fiske & Taylor, 1991). In sum, when individuals emit behaviors relevant to personality traits, when the behaviors are available to observers, when the observers notice the behavior, and when the information is properly utilized, observers' personality judgments can be quite accurate.

This model of personality judgments has been adapted in two ways to facilitate prediction of future behaviors. First, behavioral prediction models suggest that information about individuals' transitory dispositions and behavioral intentions are embedded into individuals' conduct that can predict future behavior (DeSteno et al., 2012; Sparks et al., 2016). Second, researchers seeking maximal behavioral prediction focus on specific cues and behaviors that can be recorded objectively to predict future behavior (DeSteno et al., 2012; Gottman, 2003). For instance, research on deception detection focuses on codifying cues given off by people who are lying relative to people who are telling the truth (DePaulo et al., 2003) instead of relying on observers to subjectively distinguish between liars and truth tellers (DePaulo, 1994). In a similar way, we attempt to identify PQBs—observable by others—that can forecast future turnover.

Predicting Voluntary Turnover From PQBs

We begin with the assumption that an employee's progression toward turnover is a cognitively and affectively complex process that is both driven by and incites various mental states (e.g., desire to stay/leave), attitudes (e.g., job satisfaction), intentions (e.g., intentions to leave or search), and behaviors (e.g., work avoidance, networking, interviewing) (Cotton & Tuttle, 1986; Hom & Griffeth, 1995; Lee, Mitchell, Wise, & Fireman, 1996). Furthermore, we suggest that changes in these mental states, attitudes, intentions, and "hidden" behaviors represent a proclivity or predisposition toward turnover that is encoded into observable behaviors predictive of future turnover. More specifically, we define PQBs as behavioral changes reflecting progression through the turnover process that (a) observers can notice and that (b) are associated with future turnover behavior. Examples of PQBs might include refusing to take on new projects, acting less like a team player, or having unexplained absences.

Three core processes leading to voluntary departure exist in nearly all models of turnover: (a) intentions to quit (Hom et al., 2012; Westaby, 2005); (b) affective mechanisms, such as job satisfaction and commitment (Steel & Lounsbury, 2009); and (c) seeking and comparing alternatives to current employment (Hom & Griffeth, 1995; Hom & Kinicki, 2001). Below, we describe how progression through these stages of the turnover process represents a

proclivity toward turnover and how this proclivity, in turn, may be encoded into observable behavior.

Quit/stay intentions. Behavioral reasoning theory (BRT; Westaby, 2005) is an extension of the theories of planned behavior and reasoned behavior (Ajzen, 1991; Ajzen & Fishbein, 1980). According to BRT, intentions are the motivational factor that transform psychological states and urges into behavior. The stronger the intention to perform a behavior, the greater the likelihood it will be exhibited (Ajzen, 1991; Bagozzi, Baumgartner, & Yi, 1989; Westaby, 2005). Strong intentions to quit also activate, as a side effect, behaviors that coworkers and managers may observe and predict future turnover (Ambady & Rosenthal, 1992; Gifford, 1994; Goffman, 1963). As an example, someone with a strong intention to quit may exhibit less focus and concentration on the job or may talk about a time in the future when he or she will leave the organization.

Affective mechanisms. The affective stage of the turnover process may also be encoded into observable behaviors. Given the powerful role intentions play in activating behavior, a special emphasis of BRT is antecedents of these intentions, such as attitudes toward the behavior (Westaby, 2005). Theory and empirical evidence suggest that attitudes influence behavior both directly through intentions and independently of intentions (Bagozzi et al., 1989). Attitudes impact "reasoned" behavior through intentions, whereas behavior that is impulsive, routine, or the result of extreme emotional distress is a direct outcome of attitudes (Bagozzi et al., 1989). As with intentions, the impact of attitudes on behavior is imperfect. An attitude can activate closely related behaviors (e.g., job satisfaction may activate OCBs) but can similarly activate behaviors with less correspondence (e.g., job dissatisfaction may activate strife at home; Bagozzi, 1981). In the domain of PQBs, an increased preference for leaving the organization may activate turnover intentions and behaviors but also cause one to exhibit a negative change in attitude (Harrison et al., 2006; Hom et al., 2012). Similarly, employees with declining organizational commitment may be less willing than usual to work hours outside of their normal schedule (less OCB; Meyer, Stanley, Herscovitch, & Topol-nytsky, 2002).

Seeking alternative employment and planning to announce the resignation. Changes in work attitudes and turnover intentions lead to the behavioral stages of turnover. Steel (2002) identified four main stages of job search prior to actual resignation: passive scanning of the labor market, searching for alternative employment, interacting with prospective employers, and comparing one's current job with outside job opportunities. Klotz and Zimmerman (2015) added a fifth stage, which is actively planning one's resignation announcement. These behaviors include confiding resignation plans to colleagues, customers, or vendors; seeking information on how to resign (e.g., reviewing the company's formal resignation policy); and "housekeeping" activities to prepare to leave (e.g., removing possessions from one's desk or locker; Klotz & Zimmerman, 2015).

The dramaturgical perspective of impression management (Brissett & Edgley, 1990; Gardner & Avolio, 1998; Goffman, 1959) suggests how these turnover behaviors may be encoded into observable PQBs. According to this theory, people adjust their behaviors, speech, gestures, facial expressions, and movements to create desired impressions (Goffman, 1959). Further, individuals present different personas to different audiences (Goffman, 1959).

Yet, this process is imperfect, and inadvertent remarks or actions can carry information about an individual's true affect, intentions, and predilections.

The dramaturgical perspective suggests three different processes by which job exit behaviors may be encoded into observable behaviors. First, the person may accidently engage in behaviors that signal their true intentions and future actions (Ambady & Rosenthal, 1992; DePaulo et al., 2003). For instance, undercover police officers placed in high schools may leak "maturity vibes" indicating to students they are older than they appear (Jacobs, 1993). Second, information about patterns of behavior presented to one audience can leak over to another (e.g., via social media). To illustrate, employees updating their LinkedIn profile to draw recruiters' attention may also signal to their manager that they are looking for alternative employment. Finally, the cognitive complexity of "living a double life"—presenting a persona different from one's true self—can generate observable behaviors (Saltz, 2006). Because people have a finite supply of self-control (Muraven, Tice, & Baumeister, 1998), they may find it difficult to hide feelings or behaviors long term. The mental fatigue from living a double life thus may carry information about future quitting behavior. For instance, a salesperson who intends to quit may no longer generate the necessary enthusiasm for the product or service he or she sells.

Summary and Hypothesis

Personality judgment theory suggests that behavioral predisposition can be encoded in individuals' public behavior and that these actions can be measured and used to predict future behavior. We utilize this framework to explain how and why predisposition toward turnover may be discerned from employees' behaviors. Progression toward turnover involves changes in both mental states (i.e., changes in affect and intentions) and behavior (i.e., seeking alternatives to employment and enacting one's resignation) (Hom et al., 2012; Hom & Griffeth, 1995; Steel & Lounsbury, 2009). We suggest these changes represent a proclivity to turnover that is encoded into a variety of PQBs. Specifically, on the basis of BRT, we argue that affective and intention states activate PQBs. Further, on the basis of the dramaturgical perspective of impression management, we theorize that job search and resignation planning behaviors will leak through prospective leavers' personas and carry information about turnover proclivity. Finally, we suggest that employees' PQBs can be recorded and used to predict later voluntary turnover. Together, these arguments led us to hypothesize the following:

> *Hypothesis 1:* Employees' PQBs—observed and reported by managers—will be positively related to future voluntary turnover.

Testing this hypothesis required that we first complete a multiphase process to develop and validate a measure of PQBs. In Phase 1, we use an inductive process to identify behaviors that reflect employees' progression toward turnover. In Phase 2, we use prototypicality analysis to determine the PQBs identified in Phase 1 that employees most frequently exhibit. In Phase 3, we examine the underlying factor structure of a reduced set of PQBs and test its structural validity using data from a new set of respondents. In Phase 4, we examine evidence regarding the convergent and discriminant validity for the PQB measure. Finally, in Phase 5, we formally test Hypothesis 1 by examining the ability of the PQBs to predict future voluntary turnover over and above several established predictor variables.

Phase 1: Identifying Potential PQBs

Given the lack of theoretical or empirical work on this topic, we used an inductive process to identify potential PQBs. We asked a large number of employees to self-report the behaviors they exhibited prior to quitting, as well as managers to describe what behaviors they have observed in departing employees. This cue nomination technique, which has been used to map behavioral manifestations of various constructs, including personality (e.g., Buss & Craik, 1983b), safety orientation (e.g., Tucker & Turner, 2011), and infidelity (e.g., Shackelford & Buss, 1997), resulted in a set of behaviors from a wide sampling domain (Hinkin, 1998).

Method

Participants. We collected data from four different samples: (Sample 1) 56 undergraduate business students from a university located in the western United States; (Sample 2) 24 MHR (master of human resources) students from a university in the midwestern United States; (Sample 3) 25 MBA students from a university located in the southern United States; and (Sample 4) 92 employed U.S. managers identified through a Qualtrics online survey panel.

The undergraduate participants were included to identify PQBs exhibited by less skilled and service workers, whereas the MBA and MHR students were included to identify behaviors emitted by professional employees. The managerial sample was included to ensure the nomination of behaviors that might be observed across many types of subordinates in a variety of industries. The average age of the students was 23.5 years, and 55.2% were female. The managers' mean age was 44.7, and 42.9% were female. Managers had hiring and firing authority for an average of 13 employees and averaged 11.5 years of tenure with their current employer. The median level of education for the managerial sample was a bachelor's degree. The most commonly represented industries within the sample were professional-technical services, construction, and retail sales.

Materials. Student participants were asked to think of the last time they voluntarily left a company for reasons other than termination, returning to school, following a relocating partner/spouse, or transferring to another job within the same company. Half the sample were randomly assigned to report what behaviors their manager might have noticed indicating they were *thinking* of leaving the company. The other half of each student sample were asked to report the behaviors their manager might have noticed indicating they were *actively looking* to leave the company. The different wordings captured two major stages of the turnover process (i.e., intentional and behavioral). Participating managers were asked to think of their last two subordinates who voluntarily quit. Half the managers were asked to report the behaviors emitted by subordinates suggesting they might have been *thinking* of leaving the company. The other managers were asked to report behaviors that suggested former employees may have been *actively looking* to leave the organization.

Procedure. For the undergraduates, 170 participants were presented with the surveys on the 1st day of a general management course; 56 (32.9%) responded and provided 179 PQBs (3.2 per person). For the MHR students, 24 were presented with the surveys midway through a required course; 24 (100%) responded and provided 106 behaviors (4.4 behaviors per person).

For the MBA students, 26 were presented with the surveys midway through an elective management course; 25 (96.1%) responded and provided a total of 161 behaviors (6.4 behaviors per person). Participants were told to not return the surveys if they had not voluntarily left a company. Finally, Qualtrics provided access to a panel of managers who met specific criteria: They were 21 years of age or older; supervised two or more employees with authority to hire, fire, and make work assignments; were employed in their current organization for at least 1 year; had been a manager for at least 1 year; and were not a full-time student or active member of the military. According to the U.S. Government Accountability Office (2010), 40% of U.S. managers are women; thus, we required that women represent 40% of the sample. Of the 106 participants who met these criteria, seven respondents failed to provide useable data, and seven others could not recall any voluntarily departing subordinates. This left 92 respondents reporting 485 behaviors (5.3 behaviors per person).

Results and Discussion

The 197 respondents provided 931 behaviors (4.7 behaviors per person). Following the cue nomination protocol (Buss & Craik, 1983a, 1983b), we first eliminated 146 items for redundancy. Nearly a third of these were variations on apathy toward, indifference for, or disinterest in work responsibilities. The remaining items were identified as redundant due to using slightly different words to describe the same behavior, listing the same behavior but modifying it with *very*, *extremely*, or the meaning of a behavior being highly similar or identical to others. We then eliminated 79 items for not being specific, observable behaviors (e.g., "Did what I wanted"). We eliminated 48 items for illegibility or not understanding what the participant was trying to convey (e.g., "I hope I get a job done"). Finally, we eliminated 35 items that involved things that happened to the employee rather than a behavior he or she exhibited (e.g., "Spouse had career change").

This process yielded 623 PQBs, yet many behaviors were similar. Thus, one of the authors and a management faculty member unaffiliated with this project independently sorted the behaviors into clusters. Comparisons were made between the two sorting outcomes, and differences were resolved by discussion. This process resulted in 116 clusters of similar behaviors. We then summarized items in each grouping by writing a single PQB—each with a similar grammatical structure—to capture the meaning of the items in that group. As a final step, and to ensure the items adequately represented the domain of PQBs, we reviewed articles in several practitioner publications that discussed various signs of employee quitting (e.g., Branham, 2005). All the signs mentioned in the articles were at least partially represented by the 116 behaviors we identified.

Phase 2: Prototypicality of PQBs

This phase sought to determine the 116 PQBs identified from Phase 1 most likely to be observed in departing employees. This process served two purposes. First, we wanted to identify behaviors that occur very infrequently, because including low-frequency items in a measure can bias estimates of the association between the measure and other variables (Freund & Wilson, 1998). Second, more commonly exhibited behaviors will be more useful to managers for predicting subordinate turnover than highly idiosyncratic behaviors (Mumford, Costanza, Connelly, & Johnson, 1996).

To identify exemplar behaviors, we utilized prototypicality analysis of the act-frequency approach (Buss & Craik, 1983a, 1983b). This technique measures personality and other individual differences by mapping behavioral trends representative of a given tendency. For instance, the act of "monopolizing a conversation" may represent a disposition, such as dominance. In this approach, one group of participants nominates potential representative acts (as was done in Phase 1). Then, another group identifies the nominated acts that are most prototypical of the category domain (Buss & Craik, 1983a). For this study, we asked participants to rate the frequency with which they observed each behavior among former peers and subordinates before they voluntarily quit.

Method

Participants. At one of the authors' university, an institute hosts professional conferences on various business topics. The director of the institute provided the names and e-mail addresses of individuals who had attended a conference in the previous 2 years. Of the 1,856 potential participants whose e-mail addresses were active, 156 attempted to complete the survey (8.41% response rate). Of these, 27 responded to less than 30% of the survey items and were eliminated from further analysis. Eight respondents clicked the same response option for all of their items and also were eliminated, leaving 121 final respondents. These respondents constitute Sample 5 of the study.

Given the low response rate, we conducted two tests to assess for nonresponse bias. We first compared PQB data from the first and fourth quartiles of respondents relative to age, gender, education, and number of employees supervised (Armstrong & Overton, 1977). There were no significant differences. We also compared data from the first 25% of respondents who completed the survey with the last 25% of respondents (Rogelberg & Stanton, 2007). Once again, there were no significant differences between the two groups.

Descriptives of the final sample were as follows: 35.4% were female, average age was 45.1 years, median level of education was graduate or professional degree, and 75.2% held the title of executive, director, manager, or supervisor. Of those managing others, the median number supervised was six employees. Median tenure with current employer was 8 years. A total of 16 industries were represented.

Procedure. To reduce the burden on participants, we asked each person to report on a randomly selected half of the 116 behaviors. Each participant was asked to reflect on coworkers and subordinates they had known over the previous 5 years who had voluntarily quit and to report the proportion (on a scale from *none* [1] to *all* [7]) who had exhibited each behavior prior to their departure (Buss & Craik, 1983a). Potential respondents received two e-mail invitations from the director of the conference division. Participants were asked to follow a link to an online survey, which included a randomly selected set of 58 behaviors. Questions were presented in randomly ordered blocks of four or five.

Results and Discussion

Sixty-three respondents reported on the first set of 58 behaviors, and 58 respondents reported on the second set of behaviors. To identify exemplar behaviors, we followed the procedure used in other scale development studies (e.g., Skarlicki, van Jaarsveld, & Walker,

2008) and deleted items for which 75% or more of the respondents reported they observed the behavior in "none" or "almost none" of the voluntary turnover cases. This resulted in the elimination of 58 of the 116 items. The retained set of 58 items represented a wide range of PQBs. Examples of eliminated behaviors included "They exhibited lower-than-usual energy and fatigue" and "They left a résumé or cover letter on the printer." The full set of retained items can be found in Table 1.

Phase 3: Dimensionality of PQBs

Participants and Procedure

In this phase of the research, we collected data from two additional samples to examine the underlying factor structure of the 58 most frequently exhibited PQBs identified from Phase 2.

Sample 6. We recruited U.S.-based funeral home directors and owners who supervise two or more employees. The research manager of the National Funeral Directors Association (NFDA) agreed to collaborate on this project in exchange for the authors' writing a summary of the study findings for inclusion in the organization's publications. The NFDA provided the names and contact information of the top manager or owner for 1,100 randomly selected midsized and large funeral home companies.

The surveys were administered online and hosted on the Qualtrics platform. We sent e-mails and letters to all 1,100 managers to participate in the first survey. To improve the response rate, the first letter included a $1 bill. Further, participants were told they would be entered into a drawing to win an Apple iPad Mini. We assigned respondents a unique identification number to match their responses with the NFDA list and to match their responses with a follow-up survey (described in Phase 5 below).

A total of 383 respondents started the survey. Of these attempts, 122 were eliminated for answering too few questions, multiple submissions, and not properly answering the marker question ("Please click the *Occasionally* option"). This left us with 261 completed responses. Four funeral homes could not be reached or had gone out of business, resulting in a 23.8% (261/1,096) response rate.

In asking managers to describe one of their subordinates, we took precautions to reduce the effect of nomination bias, the tendency to nonrandomly select individuals in a way that introduces systematic error (McCormick, He, Zheng, & Kolaczyk, 2012). Specifically, when completing the first survey, managers were asked to type in "the first name and last initial of up to three employees that directly report to you and have been employed at your work location for at least 3 months." Further, we asked them to "please exclude individuals who are members of the family that owns and operates the funeral home." The survey software randomly selected one name and populated the remainder of each respondent's survey with the selected name.

The sample of managers was 11.8% female with an average age of 53.3 years, had an average of 26.4 years of organizational tenure, had a median education of a bachelor's degree, and worked in a facility with an average of 8.6 full-time employees. The sample of described employees was 33.0% female with an average age of 45.7 years, had an average of 10.3 years of organizational tenure, and had a median education of an associate's degree.

Table 1
Prototypical Pre-Quitting Behaviors (Phase 2)

1. Their work productivity has decreased more than usual*
2. There have been rumors from customers, vendors, or other employees that this person might be looking for another job
3. They have acted less like a team player than usual*
4. They have acted more confident and relaxed than usual
5. They have acted more indifferent toward required paperwork and reports than usual
6. They have arrived late to work more frequently than usual
7. They have arrived to work right on time instead of a few minutes early more frequently than usual
8. They have asked for an increase in their base pay
9. They have attempted to shift their work responsibilities to others more frequently than usual
10. They have avoided social interaction with their supervisor or other members of management more than usual
11. They have become more reserved and quiet than usual
12. They have been absent from work more frequently than usual
13. They have been doing the minimum amount of work more frequently than usual*
14. They have been less interested in pleasing their manager than usual*
15. They have been less willing to commit to long-term timelines than usual*
16. They have been less willing to contribute while in meetings than usual
17. They have been less willing to work hours outside of their normal work schedule than usual
18. They have been more reluctant to take on new projects and responsibilities than usual
19. They have been more withdrawn than usual
20. They have been on the telephone for personal business more than usual
21. They have been taking longer lunch breaks than usual
22. They have been taking more breaks from their work than usual
23. They have complained less about workplace issues than their peers
24. They have complained more frequently about their coworkers than usual
25. They have engaged in job search activities on work time (for example, surfing job search sites, researching companies) more frequently than usual
26. They have engaged in more private conversations and meetings with their co-workers than usual
27. They have exhibited "secretive" behaviors at work, such as blocking their computer screen, covering papers, or keeping their office door closed more frequently than usual
28. They have exhibited a negative change in attitude*
29. They have exhibited less effort and work motivation than usual*
30. They have exhibited less focus on job related matters than usual*
31. They have expressed dissatisfaction with their current job more frequently than usual*
32. They have expressed dissatisfaction with their supervisor more frequently than usual*
33. They have left early from work more frequently than usual*
34. They have left work right at the end of the work day more frequently than usual
35. They have less time available to schedule meetings and appointments than usual
36. They have lost enthusiasm for the mission of the organization*
37. They have lost enthusiasm for their work
38. They have lost their desire for advancement
39. They have made more mistakes in their work than usual
40. They have made statements about the amount of effort they have put into work projects more frequently than usual
41. They have made statements negatively comparing their current pay, benefits, or promotion opportunities with the employment offerings of other companies
42. They have not returned phone calls and e-mails in as timely of a manner than usual
43. They have participated in fewer training and development programs than usual

(continued)

Table 1 (continued)

44. They have participated in more training and development programs than usual
45. They have questioned management decisions more frequently than usual
46. They have shown less interest in working with customers than usual*
47. They have shown more interest in human resources policies and procedures than usual
48. They have shown more interest in internal job openings than usual
49. They have spent more time chatting and visiting with coworkers than usual
50. They have spoken with candor and bluntness to their manager more frequently than usual
51. They have spoken with candor and bluntness to their peers more frequently than usual
52. They have suggested fewer new ideas and innovations than usual
53. They have taken more sick days than usual
54. They have talked about a time in the future when they would be leaving the organization
55. They have tried to make themselves look as good as possible in terms of job performance and responsibility more frequently than usual
56. They have updated their LinkedIn account with qualifications, skills, and competencies
57. They have used more of their vacation days than usual
58. They seem less happy than usual

Note: Items with an asterisk are included in the final Pre-Quitting Behavior Scale.

We compared respondents who completed the survey with the original list of potential respondents using data from the NFDA. Chi-square tests showed no significant differences between respondents and potential respondents with respect to gender, firm size, or geographic location.

Sample 7. This sample comprised managers working in the United States. To represent the U.S. managerial workforce, we requested a Qualtrics sample that included 40% female managers (U.S. Government Accountability Office, 2010). Qualtrics invited approximately 5,000 panelists to participate in the survey, and 579 individuals responded to the initial survey invitation.

Several screening controls were implemented to ensure a valid sample. First, Qualtrics invited panelists who had reported in previous surveys that they were employed outside the home. Those who reported they were currently full-time military, self-employed, and/or full-time students were prevented from completing the survey. Additional respondents were cut for not being 21 years of age or older, not being a manager, not supervising two or more employees, not providing the first and last initial of at least one subordinate (explained below), or failing to properly answer the attention question (e.g. "Please click the *Weekly* option"). To eliminate respondents providing programmed responses to the survey, Qualtrics automatically cut those who completed the survey in less time than one third of the median survey completion time. A review of respondents' IP addresses showed no duplication among the screened respondents. This resulted in a sample of 160 respondents. Two respondents provided numbers (1, 2, 3) or sequential letters (AA, BB, CC) to represent the initials of the employees that they supervise. Data from these respondents were excluded, leaving a final sample of 158 managers. The sample was 40.5% female with a mean age of 38.6 years. The respondents supervised an average of 10.8 direct reports and had an average of 10.1 years of organizational tenure. Median educational attainment was a bachelor's degree. Nineteen industries were represented.

Similar to Sample 6, we asked managers to provide the first and last initial of up to three employees "that directly report to you and have been employed at your work location for at

least 3 months." The survey software randomly selected one set from the initials provided and populated the remainder of each respondent's survey with the selected initials. Of the described employees, the average age was 38.6 years with an average of 7.3 years of organizational tenure; 44.3% were female, and the median level of education was "some college." The survey contained a subset of PQBs identified from analysis of the Sample 6 data (described below).

Measures

Sample 6. Respondents in this sample reported their observation of each of the 58 PQBs the focal subordinate exhibited. The statement at the top of randomly presented blocks of four or five questions was as follows: "We would like to ask you to think about [employee first name and last initial]'s behavior over the last 2 to 3 months. Please describe your level of agreement with each item below." Responses ranged from s*trongly disagree* (1) to s*trongly agree* (5). Example items can be found in Table 1.

Sample 7. Participants in this sample responded to a reduced set of 13 PQBs identified from Sample 6. The instructions, questions, and response options were the same as used with the Sample 6 respondents described above.

Results and Discussion

Exploratory factor analysis (EFA) of PQBs (Sample 6). To reduce the 58 PQBs to a smaller set and to identify the underlying factor structure, we conducted a set of EFAs using maximum likelihood extraction and retained items that had communalities of .70 or higher. This cutoff is recommended for all data sets but is especially appropriate for data, such as ours, in which the number of variables is high, the sample size is less than 500, and a diverse set of items is generated inductively (Fabrigar, Wegener, MacCallum, & Strahan, 1999; Hinkin, 1998; MacCallum, Widaman, Zhang, & Hong, 1999). An examination of the skew and kurtosis of the 58 PQB items showed no evidence of significant violations of multivariate normality, and thus the data were appropriate for maximum likelihood extraction (Fabrigar et al., 1999).

Hinkin (1998) recommends deleting items with low communalities and/or low factor loadings and repeating the EFAs until a clear factor structure with appropriately high communalities and factor loadings is obtained. After three rounds of EFA applying the rules for cutting items, we identified 13 items for which the extracted factors accounted for a substantial portion of item variance. Applying Kaiser's rule (i.e., number of eigenvalues exceeding 1) revealed one factor that accounted for 76.31% of the variance in these items with an eigenvalue of 10.16. Hayton, Allen, and Scarpello (2004) noted that extracting the correct number of factors is among the most critical decisions when conducting EFA and proposed using parallel analysis to help inform this decision. The underlying assumption is that common factors from real data should have larger eigenvalues than factors derived from randomly generated data having the same number of variables and sample size. We conducted EFAs on 500 randomly generated data sets with the same structure as the data for this study ($N = 261$ with 13 variables). The first factor of the real-data EFA had an eigenvalue of 10.16, greater than the upper 95% confidence interval of the eigenvalue from the Monte Carlo data (1.39).

The second factor of the real data had an eigenvalue of 0.50, below the 95% confidence interval from the Monte Carlo data (1.29). Thus, results of the parallel analysis suggested retaining only the single factor. Communalities ranged from .72 to .84. Factor loadings ranged from .85 to .91. The internal consistency (alpha) of a composite of the 13 final items was .98. The 13 retained items are marked in Table 1 with an asterisk.

Confirmatory factor analysis of PQBs (Sample 7). We used data provided by the Sample 7 managers to confirm that the PQBs reflect a single latent factor. We used the following statistics to evaluate model fit: the comparative fit index (CFI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA). Conventions for acceptable fit include CFI greater than .90, SRMR less than .09, and RMSEA less than .08 (Baumgartner & Homburg, 1996; Hu & Bentler, 1999). Fit statistics were as follows: CFI = .95, SRMR = .03, and RMSEA = .10. Ideally, we would have wanted to see RMSEA below .08, but the overall pattern of the three fit statistics suggests that the single-factor model fit the data very well. In addition, all the factor loadings were strong and statistically significant. Reliability of the scale was high (α = .96).

These results provide strong evidence across two independent samples that a single factor of PQBs provides a good fit to the data. It was interesting that the PQBs appeared to reflect one overall factor rather than several more specific factors. Perhaps these behaviors covary but do not represent an underlying construct per se. This is along the lines of how researchers originally interpreted items representing OCBs. For example, Lepine, Erez, and Johnson (2002) concluded that the behaviors underlying OCB measures tend to be highly correlated and represent the general tendency to be cooperative and helpful in organizational settings. Similarly, the high inter-correlations among the diverse PQBs suggests they may reflect changes in behavior that indicate, analogous to OCBs, a context-specific proclivity toward near-future voluntary turnover.

Phase 4: Convergent and Discriminant Validity

To start to develop the nomological network around the PQBs, we examined relations between the PQB scale and measures of similar and dissimilar constructs (Ferris, Brown, Berry, & Lian, 2008; Hinkin, 1998). Below we describe the constructs we included to assess convergent and discriminant evidence for the new measure.

Convergent Validity

Employee job performance. Chen et al.'s (1998) finding that lower exhibition of OCBs is associated with an increased likelihood of future turnover is consistent with meta-analytic evidence of a negative correlation between job performance and turnover (Griffeth, Hom, & Gaertner, 2000). Employees progressing toward departure and thus emitting observable PQBs are also less likely to invest their full energies into job performance (Hom & Griffeth, 1995; Hulin et al., 1985). Thus, we expect PQBs will be negatively related to a measure of job performance that includes both task performance and citizenship behaviors.

Manager expectations of employee turnover. As discussed, individuals are able to assess the personalities and dispositions of friends and strangers after brief interactions as well as

predict their future behavior (Ambady, Hallahan, & Rosenthal, 1995; Funder, 2012). Additional research has shown that managers observing subordinates' OCBs are able to make accurate assessments of their organizational commitment (Shore, Barksdale, & Shore, 1995). Similarly, we expect that the more PQBs managers observe, the greater their expectations that employees will voluntarily quit in the near future. Thus, we expect PQBs will be positively related to managers' expectations of employee turnover.

Employee workplace deviance. Workplace deviance reflects "voluntary behavior that violates significant organizational norms and, in so doing, threatens the well-being of the organization or its members, or both" (Bennett & Robinson, 2000: 349). In adapting Bennett and Robinson's (2000) self-report workplace deviance scale into a measure that could be used by peers and managers, Stewart, Bing, Davison, Woehr, and McIntyre (2009) identified three distinct deviance factors: production deviance, personal aggression, and property deviance. Employees progressing toward departing an organization become less bound by social norms, work less to add value to the organization, and focus more on maximizing their own utility (Hulin, 1991; Rosse, 1988). Thus, we expect that PQBs will be positively related to these dimensions of workplace deviance.

Discriminant Validity

Employee background variables and tenure. Griffeth et al.'s (2000) meta-analysis of turnover antecedents and correlates suggested four employee demographic variables that may be useful for testing discriminant validity. Gender ($\rho = -.03$), education level ($\rho = .06$), and marital status ($\rho = -.05$) are all weakly associated with voluntary turnover. Tenure has a stronger relationship with voluntary turnover ($\rho = -.23$) but should be distinct from PQBs as these behaviors can be exhibited by employees who desire to quit but are unable to do so (Hom et al., 2012). Thus, we expect very small or no correlations between PQBs and these variables.

Manager liking of employees. Finally, we expect that manager reports of employee PQBs will be unrelated to how much they like those employees. Liking is based upon perceptions of or actual shared values, interests, appearance, and background (Garcia, Posthuma, & Colella, 2008). Although PQBs could affect managers' liking of their subordinates, they are different constructs and theoretically should not be highly correlated. Therefore, we expect to find evidence of discriminant validity between PQBs and liking.

Participants and Procedure

Participants were the same individuals from Sample 6 and Sample 7 discussed in Phase 3 above. Relations between PQBs and the background variables are based on data from both samples. Sample 6 managers also completed measures of employee job performance and their expectation of employees' future turnover. In addition to background measures, Sample 7 managers completed measures describing employees' workplace deviance and their liking of their employee.

Measures

Background variables and tenure. Employee gender was measured by asking managers, "Is [employee name (Sample 6) or initials (Sample 7)] female (0) or male (1)?" Employee education level was measured by asking, "What is your best estimate of [employee name or initials]'s level of education?" with six choices ranging from *not yet a high school graduate* (1) to *graduate degree* (e.g., master's degree, law degree, PhD) (6). Marital status was measured by asking, "What is [employee name or initials]'s marital status?" with the options not married (0) and married (1). Organizational tenure was measured with "How many years has [employee name or initials] been continuously employed by your funeral home (Sample 6)/ organization (Sample 7)?"

Job performance. Task performance (three items) and citizenship behavior (three items) were measured using items from Tsui, Pearce, Porter, and Tripoli's (1997) scales. An example task performance item was "Ability to perform core job tasks," and a citizenship behavior item was "Makes suggestions to improve the department." All items were rated on a Likert scale with anchors that ranged from *strongly disagree* (1) to *strongly agree* (5). A maximum likelihood factor analysis revealed a single factor with an eigenvalue of 4.37 that explained 65.89% of the total variance. Thus, we averaged the six items to create a measure of overall job performance ($\alpha = .93$).

Expectations of employee turnover. Because we did not survey employees, we asked managers to estimate employees' intention to quit within the next 12 months. Managerial perceptions of subordinates' quit intentions also may capture other turnover influences, such as future personnel actions that have yet to be enacted but can affect subordinate departures (e.g., promotions, demotions, pay raises, benefit reductions, layoffs). Moreover, managerial forecasts of turnover may be influenced by employees' behavioral cues. Thus, controlling for supervisors' impressions of subordinate turnover intentions makes our test of voluntary turnover cues more conservative. We measured these beliefs with two items: "[Employee name] will probably look for a new job in the next year" on a scale that ranged from *definitely not* (1) to *definitely yes* (5) and "What are the chances [employee name] will leave this funeral home within a year?" on a scale that ranged from *no chance* (1) to *100% chance* (5) ($\alpha = .80$).

Workplace deviance. We measured workplace deviance using Stewart et al.'s (2009) adaptation of Bennett and Robinson's (2000) measure. Production deviance ($\alpha = .95$) was measured with three items; personal aggression ($\alpha = .93$), with four items; and property deviance ($\alpha = .90$), with three items. Scale anchors ranged from *never* (1) to *daily* (5).

Liking. Managers' liking of their employee was measured with the four-item scale from Allen and Rush (1998). An example question is "I like this employee." All items were rated on a scale with anchors that ranged from *strongly disagree* (1) to *strongly agree* (5) ($\alpha = .87$).

Results and Discussion

Convergent validity. Table 2 reports correlations between PQBs and employee job performance ($r = -.60$), manager expectations of employee turnover ($r = .57$), production deviance

Table 2
Results of Tests of Convergent Validity (Phase 4)

Variable	Correlation With PQBs	Two-Factor CFA Model With PQB Construct				One-Factor CFA Model With PQB Construct				χ² Difference Test
		CFI	SRMR	RMSEA	χ² (df)	CFI	SRMR	RMSEA	χ² (df)	Δχ² (Δdf = 1)
Total job performance	−.60*	.90	.06	.12	731.25 (151)	.82	.36	.16	1197.32 (152)	466.07*
Manager expectation of employee turnover	.57*	.95	.03	.10	327.85 (89)	.93	.15	.12	408.74 (90)	80.89*
Production deviance	.67*	.95	.04	.08	329.98 (169)	.93	.16	.09	369.22 (170)	39.24*
Personal aggression	.53*	.95	.04	.09	261.62 (118)	.92	.21	.11	330.48 (119)	68.86*
Property deviance	.40*	.95	.04	.09	223.04 (103)	.90	.26	.12	324.12 (104)	101.08*
Subordinate liking	−.52*	.95	.05	.08	243.72 (118)	.82	.35	.15	545.18 (119)	301.46*

Note: CFA = confirmatory factor analysis; PQB = pre-quitting behaviors; CFI = comparative fit index; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation.
*$p < .001$ (two-tailed tests for correlations, one-tailed tests for $\Delta\chi^2$).

($r = .67$), personal aggression ($r = .53$), and property deviance ($r = .40$) (all, $p < .001$). These results support our expectations that PQBs would be related to these constructs.

We also used CFA to assess whether scores on the PQBs measure and each convergent measure were best represented as two separate factors or as a single factor. To do so, we first assessed the fit of the two-factor model in which the latent variables for PQBs and the convergent construct were allowed to covary. We then assessed the fit of a single-factor model by constraining the covariance to 1.0 (Ferris et al., 2008). A better fit for the two-factor model would suggest that PQBs and convergent measures reflect different constructs. The results of these analyses are shown in Table 2. In all five cases, the one-factor model fit worse than the two-factor model. Taken as a whole, these results suggest that PQBs are related to, but clearly different from, other constructs within the same general domain.

Discriminant validity. As expected, PQBs were uncorrelated with the background variables from Samples 1 and 2. The results, ordered by respective sample, were as follows: gender ($r = .01$; $r = −.09$), education level ($r = −.01$; $r = −.06$), marital status ($r = −.01$; $r = −.08$), and tenure ($r = .01$; $r = −.10$) (all two-tailed, $p > .05$). Using data from Sample 7, PQBs were moderately and negatively related to subordinate liking ($r = −.52$, $p < .001$). However, as can be seen in Table 2, the CFA results provided strong support that although correlated, PQBs and liking reflect distinct constructs.

In summary, the results of this phase support the convergent and discriminant validity of the PQBs measure. The measure correlated moderately with measures of the convergent constructs and did not tend to correlate with the discriminant constructs. The evidence that PQBs are correlated but distinct from these measures is particularly notable given that the same participants (i.e., managers) provided data on all the variables, which can increase relationships (Podaskoff, MacKenzie, & Podsakoff, 2012). The one somewhat unexpected relationship was the moderate, negative correlation between PQBs and managers' liking of the subordinate. This may suggest that PQBs negatively affect managers' liking of those employees.

Phase 5: Predictive Validity

Criterion-related validity is the extent to which a measure is related to a theoretically derived outcome (Hinkin, 1998). Hypothesis 1 stated that PQBs would predict voluntary turnover. To test this hypothesis, we resurveyed the managers from Sample 6 (Phase 3) 13 months after they rated the PQBs of their employees and asked them to report on the employment status of those employees.

Participants and Procedure

We sent letters and e-mails to invite the 261 managers from Sample 6 to participate in the follow-up survey. To improve response rate, the first invitation letter included a $1 bill. Further, participants were told they would be entered into a drawing to win an Apple iPad Mini. The surveys were administered online and hosted on the Qualtrics platform. Two respondents reported they were no longer employed by the funeral home at which they worked when completing the first survey and were deleted. We thus received surveys from 196 of the original 261 respondents (75.1%) and 17.9% of the 1,096 managers originally contacted. Comparing responses from managers who completed both surveys with those completing only the first survey, we found no differences in the number of full-time employees they supervised, tenure, age, education level, or gender.

The final sample of managers was 10.4% female with an average age of 53.8 years, an average of 25.6 years of organizational tenure, had a median education of a bachelor's degree, and worked in a facility with an average of 8.45 full-time employees. The final sample of described employees was 34.7% female with an average age of 44.9 years, had an average of 9.6 years of organizational tenure, and had a median education of an associate's degree.

Measures

Control variables. We controlled for various constructs that prior research has shown to predict voluntary turnover, including employee age, gender, education level, organizational tenure, marital status, and job performance. We also controlled for managers' expectations of employees' turnover. The items used to measure each variable were described earlier (see Phase 4, Sample 6).

Voluntary turnover. In the follow-up survey, respondents were told, "Back in January/ February of 2014 we asked you a series of questions about [employee name] with the job title [employee title]. We'd like to ask you a few more." First, they were asked if the employee was still employed by the organization. If so, the survey was ended and the employee was coded as "still employed." If the answer was no, they were asked if (a) the employee voluntarily quit, (b) the employee was involuntarily terminated, (c) the organization and the employee mutually agreed to end the employment relationship, or (d) the employee passed away. If the respondent indicated the departure was of mutual agreement, he or she was given space to elaborate. If the respondent indicated the employee voluntarily quit or was terminated, several follow-up questions were presented to ensure this was the reason for departure. Of the 196 described employees, three (1.5%) were coded as "involuntarily terminated" and

Table 3
Means, Standard Deviations, and Correlations Among Study Variables (Phase 5)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Voluntary turnover	0.09	0.28									
2. EE age	44.85	13.21	−.32								
3. EE gender	0.65	0.48	−.20	.19							
4. EE education level	3.83	1.13	.16	−.28	.04						
5. EE marital status	0.69	0.46	−.15	.29	.17	−.11					
6. EE organizational tenure	9.63	8.72	−.25	.40	.15	−.16	.27				
7. Job performance	3.79	0.88	−.19	−.03	−.08	.14	.05	−.07	*.93*		
8. Manager expectations of EE turnover	1.57	0.66	.26	−.06	−.09	−.05	−.01	−.13	−.35	*.77*	
9. Pre-quitting behaviors	1.70	0.81	.31	−.00	−.01	−.04	.04	.07	−.60	.58	*.98*

Note: $N = 193$. Alphas are on the diagonal in italics. EE = employee. Voluntary turnover: 0 = continued employment, 1 = voluntary turnover. Gender: 0 = female, 1 = male. Marital status: 0 = not married, 1 = married. *r*s from .14 to .18 ($p < .05$), .19 to .24 ($p < .01$), .25 and greater $p < .001$; all two-tailed tests. The data in this table differ slightly from what was reported in Phase 4 as this information was calculated with 193 respondents who (a) participated in the second survey and (b) had employees who had voluntarily quit or remained employed. The Phase 4 sample included all 261 respondents to the first survey.

were not included in analyses below, 17 (8.7%) were coded as "voluntarily quit," and 176 (89.8%) were still employed after 13 months.

Results and Discussion

Table 3 displays descriptive statistics and correlations for the study variables. Consistent with past research (Griffeth et al., 2000), all seven control variables were significantly associated with turnover. Age, gender (0 = female, 1 = male), marital status (0 = not married, 1 = married), tenure, and job performance were negatively related to turnover, whereas education level and managers' expectation of employee turnover were positively related to turnover. PQBs were positively associated with voluntary turnover ($r = .31$) such that the greater the frequency with which managers reported observing these behaviors, the more likely employees were to voluntarily quit 13 months later.

In Table 4, we report results from two logistic regression analyses predicting voluntary turnover. Model 1 included the control variables only and was significant ($p > .001$; $\chi^2 = 52.49$, $df = 7$) with a Cox and Snell pseudo R^2 of .24. All the controls except education level and marital status were significant individual predictors of turnover within this model. Model 2 included the seven control variables, plus the PQB variable. The change in χ^2, relative to Model 1, was significant ($p < .01$). The pseudo R^2 improved from .24 to .28 from Model 1 to Model 2. The beta coefficient for PQBs ($\beta = 1.87$) was positive, which suggests that employees who exhibit more of these behaviors are more likely to voluntarily quit than employees who exhibit fewer of these behaviors. The odds ratio of 6.48 for the PQB variable indicates that a one-unit increase in PQBs increases the odds of voluntary turnover by a factor of 6.48.

To place this finding in perspective, we used the odds ratio of 6.48 to calculate the change in the probability of turnover when the PQB scale increased one unit while holding all other variables at their means. Since the transformation from odds to probability is monotonic, we

Table 4
Hierarchical Logistic Regression Analysis of Control Variables and Pre-Quitting Behaviors on Voluntary Turnover (Phase 5)

Variable	Model 1		Model 2	
	β	SE	β	SE
Controls				
Age	−0.10*	0.05	−0.12*	0.05
Gender	−1.53*	0.70	−1.99*	0.86
Education level	0.27	0.33	0.11	0.37
Marital status	0.23	0.74	−0.35	0.82
Organizational tenure	−0.26*	0.12	−0.42*	0.17
Job performance	−0.88*	0.43	−0.47	0.48
Manager expectations of employee turnover	1.12*	0.50	0.09	0.66
Pre-quitting behaviors			1.87**	0.62
Model fit statistics				
χ^2 (df)	52.49(7)***		64.24(8)***	
$\Delta\chi^2$ (Δdf)			11.75(1)***	
Cox & Snell pseudo R^2	0.24		0.28	
ΔCox & Snell pseudo R^2			0.04	

Note: N = 193. Voluntary turnover: 0 = continued employment, 1 = voluntary turnover. Gender: 0 = female, 1 = male. Marital status: 0 = not married, 1 = married.
*$p < .05$.
**$p < .01$.
***$p < .001$ (all two-tailed tests).

calculated the change in turnover probability for someone with a turnover probability equal to half the turnover rate of the sample (8.7%/2 = 4.35% probability) and double the rate of the sample (8.7%*2 = 17.4% probability). The results suggest someone with a 4.35% chance of turnover would have a 5.34% probability of turnover if PQBs increased by one unit (Δ0.99%). If someone had a 17.4% chance of turnover, a one-unit increase in PQB would be associated with a 27.76% probability of turnover (Δ9.96%). Taken as a whole, these results provide support for Hypothesis 1 and suggest that PQBs can forecast future voluntary turnover and do so over and above established predictors.

Discussion

There is a widespread belief among practitioners and scholars that individuals with a predisposition to quit their current employment exhibit observable behaviors that can predict future turnover (e.g., Branham, 2005; Harris, Kacmar, & Witt, 2005; Goffman, 1974). Unfortunately, this proposition has not been rigorously examined and thus has had little impact on models of voluntary turnover.

The purpose of this study was to develop a theoretical framework that explains the encoding of turnover proclivity into PQBs. Then, on the basis of input from employees who voluntarily left and their managers, we identified a range of PQBs, which served as the basis for an initial measure of the behaviors. Finally, we examined validity evidence for the new measure

and found that manager reports of PQBs converged with constructs such as job performance, manager expectations of employees' turnover, and workplace deviance and were divergent from constructs such as gender, education level, marital status, and organizational tenure. Furthermore, we found that PQBs predicted future voluntary turnover over and above established predictors of this important outcome. Overall, the results support the view that the psychological and behavioral processes that activate and facilitate voluntary turnover are manifest in observable behaviors and thus open a new line of inquiry into the process of employee turnover.

Implications for Theory

For the past 100 years, scholarly turnover research has focused on understanding the underlying processes that explain how and why individuals voluntarily terminate their employment with organizations (Hom et al., 2012). The present study contributes to the turnover literature by examining behaviors concomitant with the cognitive, affective, and behavioral processes that lead to voluntary turnover. First, we built our theoretical framework guided by the belief that all major stages of turnover can be encoded into observable behaviors. This part of the theory guided our choice to use an inductive approach to identify the PQBs and resulted in behaviors that appeared to represent several stages of the turnover process.

Our second theoretical contribution was to use personality judgment theory to explain how PQBs are encoded with information about an individual's proclivity toward turnover. Further, we drew upon BRT (Westaby, 2005) to suggest that cognitive, affective, and intentional changes that facilitate turnover may inadvertently activate observable behaviors. We utilized the dramaturgical perspective of impression management (Brissett & Edgley, 1990; Gardner & Avolio, 1998; Goffman, 1959) to explain how behaviors such as job search and resignation planning, activities that are not deliberately exhibited to managers and coworkers, are manifested as publicly observable behaviors. Departure behaviors may emerge due to accidental exposure (Ambady & Rosenthal, 1992) and "leakage" from one audience to another (Gifford, 1994). By showing that PQBs predict future turnover, we provide strong corroboration for the proposition that information regarding turnover proclivity is encoded into observable behaviors.

Our primary goal was to contribute to the turnover literature by proposing the existence of PQBs and explaining how and why they manifest. Making this contribution required the development of a valid and reliable measure of PQBs. Across two samples, the psychometric properties of the PQB measure were supported as demonstrated by the stable factor structure, internal consistency, convergent and discriminant validity, and predictive validity. Just as OCBs, a covarying set of different behaviors, are a reflective measure of a general tendency toward helpfulness within organizations (Lepine et al., 2002), we suggest PQBs are a covarying set of behaviors reflective of employees' proclivity to quit their current employer. This propensity is quite difficult for employers to measure directly, as those with low proclivity to quit are unable to convey this convincingly, while those with a high predisposition to quit have strong incentives to disguise their future intentions (Salop & Salop, 1976). The development of a measure of turnover proclivity derived from the observations of others allows employers to predict employees' future turnover with fewer problems of information asymmetry.

Directions for Future Research

The present study represents an initial examination of PQBs, and thus there are many opportunities to replicate and extend our findings. For example, future studies should try to replicate the finding that PQBs predict voluntary turnover, such as in high-turnover populations (e.g., sales). Future researchers also might attempt to categorize the behaviors according to representation of the major affective, cognitive, intentional, and behavioral stages of turnover. For example, researchers could assess employees' attitudes, intentions, and where they may be in the turnover process and ask managers to indicate the behaviors employees are exhibiting. Such data could be used to determine whether employees who exhibit certain behaviors indeed possess negative attitudes or intentions to leave. Further, identifying behaviors employees exhibit at the early stages of turnover might give managers an opportunity to prevent the development of negative job attitudes that can instigate the withdrawal process. Beyond predicting turnover, such studies could try to identity employees' turnover stage on the basis of the behaviors they exhibit.

For this initial study, we chose to ask managers to report PBQs their employees displayed; future researchers may consider asking a wider range of workplace associates about focal employee behavior. Coworkers, customers, and subordinates have opportunities to observe behaviors that managers do not or to observe behaviors that employees choose to hide from their managers (Goffman, 1963). For example, perhaps PQBs reported by those who have more exposure to employees' natural behavior (e.g., coworkers) may better predict future turnover than behavioral observations by those having lower exposure (e.g., customers, managers). If so, this would suggest that information availability is a moderator, similar to what has been found in the personality judgment literature (Funder, 2012).

PQBs may also be captured in a variety of unobtrusive ways, including tracking behavior on corporate intranets, postings on social media sites, and interactions with others using sociometric badges (Morrison, 2009). Corporations and consulting firms have moved far beyond what has appeared in the scientific literature. For instance, hiQ Labs helps companies "scrape" their intranets, human resources information systems, and outside social media sites to identify employees at risk of quitting (Gretczko & Stephan, 2015). Furthermore, Gifford (1994), in his groundbreaking study of personality judgment, coded video-recorded samples of subjects' natural behavior and objectively identified specific behavioral manifestations of personality traits. Similarly, use of video methodology to identify behavioral patterns linked to future turnover may uncover mechanisms by which turnover proclivity is encoded into individual behavior.

Finally, future studies could use the PQBs we identified to make a priori predictions of which employees are likely to leave and which employees are likely to stay. The employees likely to leave could be randomly assigned to two groups, intervention and control. Interventions to discourage turnover (e.g., pay raises, "stay interviews") could be used to attempt to retain employees in the first group, while the control group could be left alone. Accurately predicting turnover in the control group would replicate the present findings, whereas the turnover rate of the experimental group relative to the control could be used to test the effectiveness of intervening with employees' showing a proclivity toward turnover.

Implications for Practice

Available data suggest that organizations are not very good at retaining employees. For example, according to the Bureau of Labor Statistics (2015), one in every 4.5 workers

voluntarily quits his or her job each year. Employees joining competitors often take with them customers, take proprietary product information, and even financially damage the company through low productivity, sharing of company secrets, or sabotage. Organizations have available to them myriad tools for reducing business unit and organizational turnover rates, including inducement and investment human resource practices, interventions to improve collective job satisfaction and commitment, and increasing the average age of the unit employee (Heavey, Holwerda, & Hausknecht, 2013). On the other hand, practitioners are limited in their ability to slow the turnover of specific employees.

Ethically, employers cannot promise employees confidentiality with their survey responses and then use these data to intervene with those identified as turnover risks. On the other hand, asking employees to complete turnover surveys without the promise of confidentiality may result in false responses and invalid data (Griffeth & Hom, 2001). The PQB scale developed for this study offers a valid and reliable means of identifying potential quitters without crossing ethical or legal guidelines.

Furthermore, identifying employees at risk of quitting, in turn, might allow organizations to mitigate these types of losses. For example, after identifying at-risk employees, organizations could determine which employees should be targeted for retention and which employees should be allowed to leave on their own. Employees worth retaining could have their jobs enriched (e.g., greater autonomy or flexibility), be offered a retention bonus, be provided advancement opportunities, or even be asked to sign a noncompete agreement. When organizations decide not to try to retain an employee, they might take steps to expedite succession planning for filling the soon-to-be empty role, reassign valuable clients, or implement security steps to prevent loss of company assets. Thus, retention efforts could be shifted from attempting to lower the overall turnover rate within the organization to attempting to retain valuable employees who appear at risk of leaving, lessening dysfunctional turnover.

Strengths and Limitations

The present study possesses several strengths. Specifically, our findings are based on data collected from seven different samples, which comprised a diverse set of participants, occupations, and organizations. We used established approaches to identify the PQBs, and we developed and validated an initial measure of the behaviors. For example, we used a predictive design to assess the criterion-related validity of the PQBs in relation to voluntary turnover. Further, we demonstrated the incremental validity of the PQBs in relation to established turnover antecedents.

Despite these strengths, this study possesses some limitations. First, the response rate among Phase 2 (Sample 5) participants (who reported the frequency with which they observed the turnover behaviors) was low. Although we did not find any evidence of nonresponse bias, it would have been ideal if the results were based on a larger proportion of the population we sampled. Second, although we collected data from several different groups of participants, we did not have an opportunity to collect data from employees in Phase 5. As such, we were not able to measure employees' individual differences, job attitudes, or where they may have been in the stages of the turnover process. As noted above, this may be a logical next step in future research in this area.

Third, we used the "perceived change" method to measure managers' perceptions of employees' PQBs (Lam & Bengo, 2003). Specifically, managers were asked to consider the

behavior of their subordinates over the previous few months and to describe recent changes in their behavior relative to their usual behavior. This method of measuring behavioral change can be sensitive to rater biases, such as recall bias and implicit theories of change (Hill & Betz, 2005). However, when not used for high-stakes evaluations, and when the ratings are collected from observers rather than raters themselves, this method has been shown to provide valid and reliable information (Hill & Betz, 2005; Lam & Bengo, 2003).

Fourth, asking managers to assess their employees' PQBs may have made potential turnover more salient to them and, in turn, led them to behave differently toward subordinates they thought might be at risk for turnover. However, nothing in the marketing of the survey or the survey itself indicated to participants that the goal of the study was to identify behaviors predictive of future turnover. Further, Gardner, Munyon, Hom, and Griffeth's (in press) research suggests managers hold feelings of territoriality toward their employees and work to retain them if they expect them to quit. Thus any actions managers in our samples may have taken to prevent employee turnover would have tended to decrease future turnover and, in turn, make our estimates of the predictive value of PQBs more conservative.

Conclusion

Economist Sumner Slichter may have been the first social scientist to suggest the existence of PQBs when he wrote, "A man becomes disgusted with his job, decides he is going to quit or that he does not care if he is discharged. He begins to loaf or do careless work" (Slichter, 1919: 12). The present research systematically identified the behaviors that employees who are in the process of leaving frequently exhibit. We contributed to extant turnover theory by further disentangling the measurement of turnover factors from the source of measurement. Further, we explained why PQBs emerge from employees progressing through the various stages of voluntary turnover and tested the first step of this model by demonstrating predictive validity of these behaviors beyond established antecedents of turnover. Finally, we identified some key next steps for future research and provided guidance to managers seeking to identify and intervene in the turnover trajectories of specific employees. We hope this study will inspire further research on the emergence and predictive value of PQBs.

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