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Antecedents and Outcomes of Organizational Support for Development: The Critical Role of Career Opportunities

Maria L. Kraimer and Scott E. Seibert
University of Iowa

Sandy J. Wayne and Robert C. Liden
University of Illinois at Chicago

Jesus Bravo
Arizona State University—Polytechnic Campus

This study examines antecedents and behavioral outcomes of employees' perceptions of organizational support for development. We first propose that employees' past participation in formal developmental activities and experience with developmental relationships positively relate to their perceptions of organizational support for development. We then propose that perceived career opportunity within the organization moderates the relationship between organizational support for development and employee performance and turnover. Using a sample of 264 exempt-level employees and their supervisors, we found that participation in training classes, leader–member exchange, and career mentoring were each positively related to employees' perceptions of organizational support for development. We also found support for the moderator hypotheses. Specifically, development support positively related to job performance, but only when perceived career opportunity within the organization was high. Further, development support was associated with reduced voluntary turnover when perceived career opportunity was high, but it was associated with increased turnover when perceived career opportunity was low. Our study demonstrates that social exchange and career motivation theory work together to explain when and how employees' perceptions of organizational support for development relate to turnover and job performance.

Keywords: management development, career opportunities, retention, turnover, job performance

Organizations invest a great deal of money, time, and effort in the development of their employees (e.g., Aguinis & Kraiger, 2009). For example, it is estimated that U.S. companies spent $134.1 billion on employee learning and development in 2008 (American Society for Training and Development, 2009). Management development is defined as the process through which employees acquire the competencies necessary to achieve managerial effectiveness (Dragoni, Tesluk, Russell, & Oh, 2009). It is particularly important because managerial talent is a critical source of competitive advantage (Lado & Wilson, 1994). Academic research has demonstrated that employees who participate in training and development programs acquire job-related skills and competencies and demonstrate higher job performance (e.g., Aguinis & Kraiger, 2009; W. Arthur, Bennett, Edens, & Bell, 2003; Birdi, Allan, & Warr, 1997; Kozlowski et al., 2001). There is also a considerable literature devoted to the factors that encourage employees to participate in development activities, where organizational and supervisor support for development are seen as important antecedents (e.g., Birdi et al., 1997; Hurtz & Williams, 2009; Maurer, Pierce, & Shore, 2002; Maurer & Tarulli, 1994; Maurer, Weiss, & Barbeite, 2003; Noe & Wilk, 1993).

However, what has received much less attention is whether employees' perceptions that the organization supports employee development does itself motivate employee performance and turnover, independent of the increased skills acquired through participation in training (Maurer & Lippstreu, 2008). This is a noteworthy gap in the literature because it is a common belief that the overall level of developmental support provided by an organization is critical to attract, motivate, and retain managerial, technical, and professional workers (e.g., *Fortune*'s 100 Best Companies to Work For; Michaels, Handfield-Jones, & Axelrod, 2001). Yet, the reality is that few studies have rigorously tested the effects that perceptions of organizational support for development have on employee performance and retention. Further, little is known about the factors that influence employee perceptions of development support. As Aguinis and Kraiger (2009) suggested in their recent review of the literature, "future research could investigate the extent to which training opportunities are seen as a message that

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Maria L. Kraimer and Scott E. Seibert, Department of Management & Organizations, University of Iowa; Sandy J. Wayne and Robert C. Liden, Department of Managerial Studies, University of Illinois at Chicago; Jesus Bravo, W.P. Carey School of Business, Arizona State University—Polytechnic Campus.

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Correspondence concerning this article should be addressed to Maria L. Kraimer or to Scott E. Seibert, University of Iowa, Department of Management & Organizations, 108 John Pappajohn Business Building, Iowa City, IA 52242-1994. E-mail: maria-kraimer@uiowa.edu or scott-seibert@uiowa.edu

the organization cares [for its employees], which could be a powerful and important message in today's corporate world plagued by downsizing and employee layoffs" (p. 467). Therefore, it is important to examine both the antecedents of perceptions of development support and the extent to which these perceptions are related to increased employee performance and reduced turnover. Examining these issues extends our understanding of this important talent management process.

Our study addresses three research questions. First, we ask, what factors influence employees' perceptions of organizational support for development? *Organizational support for development* (OSD) is the employees' perceptions that the organization provides programs and opportunities that support employee development. We consider two broad types of antecedents to OSD: employees' participation in formal developmental activities provided by the organization and informal experiences of quality developmental relationships with senior managers (e.g., leader–member exchange and career mentoring). Examining these antecedents will help develop models that link formal and informal developmental practices to this key employee perception.

Second, we ask, do perceptions of OSD relate to employees' job performance and turnover? Our focus on perceptions of development support addresses a critical gap in the literature because a wide variety of research has demonstrated that employees' perceptions of organizational policies and practices are a more proximal predictor of employee behaviors than are the actual policies themselves (e.g., Colbert, Mount, Harter, Witt, & Barrick, 2004; Ehrhart & Ziegert, 2005; Wayne, Shore, & Liden, 1997). Yet, we are not aware of any studies that examine turnover (as opposed to turnover intentions) as an outcome of perceptions of development support. Further, as is reviewed in more detail below, the few studies that have examined job performance and/or turnover intentions as outcomes have reported inconsistent results: Two studies found positive effects (e.g., Kozlowski & Hults, 1987; Wayne et al., 1997); three found no effect (Kozlowski & Farr, 1988; C. H. Lee & Bruvold, 2003; Noe, 1996); and one found a negative effect (Ito & Brotheridge, 2005). These previous inconsistent results suggest that the effects of OSD on employee behaviors may be bounded or moderated by contextual variables.

The possibility of moderation by a contextual variable leads us to our third research question. On the basis of London's (1983) career motivation theory and more recent notions of the "boundaryless" career (M. B. Arthur & Rousseau, 1996), we identify perceived career opportunity as a potential moderator of organizational development support. We define *perceived career opportunity* (PCO) as employees' belief that jobs or positions that match their career goals and interests exist within the organization. We ask, does PCO moderate the relationship between OSD and employee performance and turnover? We expect employees to react positively in response to development support when they perceive that the organization offers many career opportunities that they find desirable. On the other hand, when such career opportunities are lacking, we expect OSD to have neutral or negative effects on employee performance and retention.

This article makes four key contributions. First, we contribute to the management development literature by examining antecedents of perceptions of OSD. Second, we extend this literature by linking development support to both performance and turnover and by examining one moderator, PCO, of both of these relationships. Third, we contribute to turnover research by demonstrating the interactive effect of employees' perceptions of OSD and career opportunity within the organization as a motivator of turnover, above and beyond the influence of common alternative explanations of turnover. Finally, we contribute to the career literature by introducing the PCO construct. We demonstrate that PCO is theoretically and empirically distinct from related constructs such as promotion satisfaction and perceived career plateau. The PCO construct thus highlights the important role that career considerations play in shaping employee work behavior.

Organizational Support for Development

Researchers have previously discussed the importance of organizational support for employee development, although no single conceptualization of this construct dominates the literature. This is perhaps due to the fact that different conceptualizations have been used depending on the purposes and outcomes of interest in a particular study. For example, early research was primarily interested in the need for engineers to engage in continuous learning and technical updating in order to avoid obsolescence and maintain performance (Dubin, 1977; Kaufman, 1974). Kozlowski and colleagues (Kozlowski & Farr, 1988; Kozlowski & Hults, 1987) therefore developed a broad construct to assess *climate for technical updating*, which consists of a number of dimensions that assess organizational policies and practices related to development. These dimensions include information exchange, rewards and resources that emphasize achievement, challenging job assignments, minimal work pressure, supervisor support, and organizational support for updating. Later researchers (e.g., Maurer & Tarulli, 1994; Noe, 1996; Noe & Wilk, 1993) were interested in the factors that promote all types of employees to participate in training and development activities. These researchers focused on the social support that peers and supervisors provide specifically to the focal employee as a particularly important factor facilitating development activity. Finally, researchers have recently become interested in the effect that development support has on more general employee work attitudes and behaviors (e.g., Ito & Brotheridge, 2005; C. H. Lee & Bruvold, 2003; Maurer & Lippstreu, 2008). These researchers have tended to include peer and supervisor support as well as organizational policies and programs as sources of developmental support (see also Maurer & Tarulli, 1994).

Our interest is specifically focused upon employees' behavioral reactions to OSD. On the basis of social exchange theory, we explore the conditions under which employees will be motivated to stay with and work hard for organizations that show they care about employee development (e.g., Aguinis & Kraiger, 2009; C. H. Lee & Bruvold, 2003). We therefore define *organizational support for development* (OSD) as employees' overall perceptions that the organization provides programs and opportunities that help employees develop their functional skills and managerial capabilities. Consistent with the early work that treated this construct as a psychological climate perception (e.g., Kozlowski & Farr, 1988), we recognize that employees' perceptions are driven by specific features of the organizational context and that these perceptions in turn drive employee behaviors. We therefore examine both antecedents and behavioral outcomes of OSD perceptions.

Antecedents of Organizational Support for Development

As noted above, the antecedents of employee perceptions of OSD are not well understood (Aguinis & Kraiger, 2009). Building on the notion that personal experiences are the stimuli that shape employees' perceptions of the organization (e.g., Kozlowski & Farr, 1988; Schneider, Bowen, Ehrhart, & Holcombe, 2000), we propose that employees' levels of participation in developmental activities in the organization influence their perceptions of OSD. Career research has identified two distinct types of developmental resources: formal developmental programs and informal, relationally based developmental activities (Hall, 1996; Sturges, Guest, Conway, & Davey, 2002). We therefore examined two categories of antecedents: employees' participation in formal developmental activities in the organization and employees' experiences with developmental relationships in the organization.

Participation in formal development activities. Although research has demonstrated that OSD motivates employees to participate in training (e.g., Birdi et al., 1997; Maurer et al., 2003), we believe a reciprocal relationship among these two general constructs is likely. That is, employees who have personally participated in developmental activities are likely to have more knowledge about these activities and to see them as more prevalent in the organization than someone who has not previously participated. Since the specific activities represent the level of resources invested by the company in support of employee development (Tsui, Pearce, Porter, & Tripoli, 1997), employees who have participated in these activities will be more likely to form the perception that the company is supportive of employee development overall (D. G. Allen, Shore, & Griffeth, 2003; Wayne et al., 1997). We test this proposition with four specific types of developmental activities provided by our study's participating organization:

> *Hypothesis 1:* Employees' participation in (a) the high-potential program, (b) training classes/workshops, (c) job rotations, and (d) tuition reimbursement programs positively relate to their perceptions of organizational support for development.

Developmental work relationships. We also examined two developmental relationships as predictors of OSD: leader–member exchange and career mentoring. *Leader–member exchange* (LMX) refers to the quality of the social exchange relationship between a leader and follower (Liden & Maslyn, 1998). High LMX relationships are characterized by an exchange of resources and support that extends beyond the employment contract, whereas low LMX relationships are limited to support required for completing task activities and satisfying the employment contract (Liden, Sparrowe, & Wayne, 1997). One of the ways that employees are supported beyond contract requirements is to be offered growth opportunities. As LMX quality increases, members are provided with more growth opportunities, such as greater autonomy and involvement in decision making (e.g., Dansereau, Graen, & Haga, 1975; Liden, Wayne, & Sparrowe, 2000; Scandura, Graen, & Novak, 1986). In addition, research on *perceived organizational support* (POS) has demonstrated that immediate leaders (e.g., supervisors) represent a critical agent of the organization to many employees and that supervisor support is strongly associated with changes in employees' perceptions of organizational support (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). Following this logic, OSD may also be viewed through the lens of LMX quality: Employees evaluate the organization's level of support for development on the basis of the extent to which their immediate leaders provide them with development opportunities.

> *Hypothesis 2:* Leader–member exchange is positively related to employees' perceptions of organizational support for development.

Mentoring has been defined as the developmental support that senior colleagues provide to more junior colleagues oriented toward the junior member's psychological growth and career development (Kram, 1985; Levinson, 1978). Of the two mentoring functions identified by Kram (1985), career and psychosocial support, we believe the career support function will be related to employees' perceptions of OSD because it provides benefits that directly help employees' career development and growth. According to Kram, career mentoring is composed of specific mentor behaviors such as sponsorship, coaching, exposure to more senior colleagues, and recommending the protégé for challenging work assignments. These activities are thought to provide the protégé with greater access to information and resources and greater organizational and job knowledge (Dreher & Ash, 1990; Lankau & Scandura, 2002; Seibert, Kraimer, & Liden, 2001). Social exchange theory (Blau, 1964) suggests that employees who receive benefits, such as greater access to information and resources and more challenging job assignments, should have more positive attitudes about the organization's development policies (Tsui et al., 1997).

> *Hypothesis 3:* Career mentoring is positively related to employees' perceptions of organizational support for development.

Previous Research on Outcomes of Organizational Support for Development

In this study we examine two behavioral outcomes of OSD: job performance and turnover. Previous researchers have suggested that, consistent with social exchange theory (Blau, 1964), perceptions of OSD should be positively related to performance and retention (e.g., Benson, Finegold, & Mohrman, 2004; C. H. Lee & Bruvold, 2003). This is because development support signals to employees that they are valued and respected by the organization (Cavanaugh & Noe, 1999; C. H. Lee & Bruvold, 2003), and, on the basis of the norm of reciprocity (Blau, 1964; Gouldner, 1960), employees should be motivated to engage in high job performance and to remain with the organization. However, studies regarding the effects of development support on employee performance and turnover have been limited in number and have produced mixed results. For example, Kozlowski and Hults (1987) found that engineers' perceptions of the updating climate significantly correlated with supervisor ratings of job performance measured both cross-sectionally and 1 year later, whereas Kozlowski and Farr (1988) found that updating climate perceptions did not account for significant variance in job performance. Noe (1996) found a non-

significant relationship between employees' perceptions of manager support for development and job performance. Finally, Wayne et al. (1997) found employees' developmental experiences positively related to job performance mediated by POS.

Results are also inconclusive when turnover intention is the outcome of interest. Consistent with social exchange theory, some researchers have found that employee participation in developmental activities leads to greater POS, which in turn leads to reduced turnover intentions (D. G. Allen et al., 2003; Wayne et al., 1997). However, C. H. Lee and Bruvold (2003) did not find a direct relationship between employees' perceptions of organizational investment in employee development and turnover intentions. Further, Ito and Brotheridge (2005) found that employees' perceptions of supervisor support for development directly decreased turnover intentions but indirectly increased turnover intentions through employees' career adaptability. Although none of these studies examined actual turnover as the outcome, it appears that social exchange theory alone cannot fully account for the relationship between development support and turnover.

We believe that a moderator variable, employees' perceptions of desirable internal career opportunities within the organization, may reconcile these inconsistent findings by explaining the conditions under which OSD relates to increased performance or retention. Yet, our review of the career literature revealed no established construct that specifically captures employees' perceptions of the extent to which an organization offers desirable career opportunities. Therefore, below, we present the conceptual development of a PCO construct before presenting hypotheses in which we propose that PCO moderates the relationships between OSD and the outcomes.

Perceived Career Opportunity

We define *perceived career opportunity* (PCO) as employees' perceptions of the degree to which work assignments and job opportunities that match their career interests and goals are available within their current organization. An important aspect of this definition is that it reflects employees' perceptions of the opportunities within the organization relative to their own subjective career goals and interests; these goals may or may not involve promotion and upward mobility along a vertical career track. Because each employee's career goals and interests may differ, individuals in the same organization may hold very different perceptions of the career opportunities that the organization offers them. Further, employees' perceptions of career opportunity are not necessarily fixed or permanent but may change over time based on their own work history, career self-management activities such as career planning and goal setting, their exposure to career options in the organization, the signals they receive from key organizational representatives regarding their career potential, and changes in life circumstances.

We believe that PCO is an important contextual construct because careers have become increasingly boundaryless and self-directed in what is widely recognized as the era of the "new employment relationship" (M. B. Arthur & Rousseau, 1996; Mirvis & Hall, 1994). The boundaryless career concept implies that employees now expect their careers to unfold across multiple employers and work roles and that it is primarily up to employees to manage their own careers (Pearce & Randel, 2004; Roehling, Cavanaugh, Moynihan, & Boswell, 2000). According to career scholars, the boundaryless career attitude has also led individuals to evaluate their career success not just in terms of promotions and salary but in terms of their own subjective criteria for career success (Heslin, 2005). For example, individuals may seek to acquire specific types of skills (e.g., technical or managerial), to have certain types of work arrangements (e.g., work–family accommodations), or to work in specific organizational contexts (e.g., overseas assignment or a start-up business opportunity) over the course of their careers. Thus, employees' perceptions of the extent to which job opportunities within the organization match their career goals and interests are likely to be subjective and somewhat malleable, and yet an important contextual variable that influences employees' reactions to organizational development efforts.

Moderating Role of Perceived Career Opportunity

Career motivation theory (London, 1983; London & Mone, 2006) provides the underlying logic that explains why PCO may moderate the relationship between perceptions of OSD and the behavioral outcomes. The core tenet of career motivation theory is that individuals' work behaviors and decisions are, to varying degrees, motivated by their desire to achieve their own career goals (London, 1983; London & Mone, 2006). For example, employees may be motivated to engage in high job performance in order to be considered for future job positions that are consistent with their career goals. Alternatively, employees may voluntarily leave an organization in order to pursue desirable career opportunities at another organization or through self-employment if they believe it is the best way to accomplish their career goals. Early evidence suggests that matching developmental support to individual career plans is an important motivator of behavior (Granrose & Portwood, 1987). We build upon these insights to develop our remaining hypotheses with regards to job performance and turnover.

Job performance. We anticipate OSD to be positively related to supervisor ratings of job performance but expect PCO to moderate this relationship such that it is stronger when PCO is high than when it is low. In social exchange theory terms, employees may perceive organizational development support as a valuable resource that helps them improve their skills and abilities. Employees may reciprocate such support through higher job performance (Blau, 1964; Cavanaugh & Noe, 1999). Career motivation theory further suggests that employees who perceive high levels of career opportunity may be especially motivated to produce high levels of performance. When valued career opportunities are perceived to be present in the organization, employees have greater motivation to work hard on behalf of the organization. This is because, whatever other rewards may result from high job performance, employees may see hard work and high job performance in the current organization as potentially useful to the achievement of their career goals (Day & Allen, 2004; London, 1983). The notion that employees see the possibility that their career can unfold within the current organization also implies that they will feel embedded within the organization (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). Following the logic of embeddedness theory, when there is a match between one's career goals and the opportunities offered by the organization, a departure from the organization would mean the sacrifice of those valuable

opportunities. Employees are therefore motivated to work hard in order to remain with the organization (T. W. Lee, Mitchell, Sablynski, Burton, & Holtom, 2004).

When PCO is low, however, employees may not be motivated to exert the extra effort required to achieve high performance since the possibility of achieving career goals in the current organization is low. That is, development support may be valued by employees, but it may not in itself motivate employees to achieve high levels of performance in the organization. Also, when the match between employees' career goals and the opportunities offered by the organization is low, there are few career sacrifices to be made as a result of low job performance. Thus, when PCO is low, perceived OSD has a weaker relationship to job performance.

> *Hypothesis 4:* Perceived career opportunity moderates the positive relationship between employees' perceptions of organizational support for development and job performance, such that this relationship is stronger when perceived career opportunity is high than when it is low.

Turnover. We expect employees' PCO in the current organization to moderate the effects of OSD on turnover in a slightly different manner. As discussed above, employees should perceive development support as a potentially valuable resource because it can be used to build their own skills and abilities. However, we expect this resource to translate into decreased turnover only when career opportunities that match the employees' career goals are present within the organization. When PCO is high, we expect development support to decrease turnover because higher levels of development support and the presence of career opportunities together lead employees to believe that they can accomplish their career goals within the organization (London, 1983). The organization is providing development support that prepares them for what they perceive as attractive career opportunities. This motivates employees to stay with the current employer because career opportunities are likely to embed employees within the organization; turnover would represent a sacrifice of valued outcomes related to the employees' career goals (Maertz & Campion, 2004; Mitchell et al., 2001).

Conversely, when career opportunities within the current organization are perceived to be low, we expect higher levels of development support to increase turnover. This may occur because there is little to be sacrificed in terms of career goal achievement if the employee leaves the current organization. At the same time, development support is likely to increase the employees' movement capital (Trevor, 2001; Trevor & Nyberg, 2008). This is due to the signaling function that development activity might provide to the external labor market regarding the value of the employee (Schwab, 1991; Spence, 1974). Degrees, certificates, additional lines on one's resume regarding training programs completed, or simply association with an organization that is known for effective management development can signal to the external labor market that one will be a highly productive and valuable worker (Benson et al., 2004; Spence, 1974). Thus, although development support may be valued by employees, it may not by itself motivate employees to reciprocate through job loyalty. Instead, in the era of the boundaryless career, when employees perceive low levels of career opportunity, OSD may lead employees to believe that the organization has provided them with skills and abilities that improve their mobility (Pearce & Randel, 2004; Roehling et al., 2000). They may thus be more likely to leave the organization in hopes of finding more desirable career opportunities elsewhere.

> *Hypothesis 5:* Perceived career opportunity moderates the relationship between perceptions of organizational support for development and voluntary turnover, such that the relationship is negative when career opportunity is high but positive when career opportunity is low.

Alternative Theoretical Explanations

Previous research has provided several alternative theoretical explanations to our proposal that PCO provides the motivation to engage in higher job performance and remain with the organization in response to development support. By controlling for these alternative explanations, we demonstrate the robustness of our findings and show that our proposed moderating effect is independent of these alternative explanations.

Work attitudes. One alternative explanation is that organizational development support leads to more positive work attitudes and that it is these attitudes that impact performance and turnover. Job dissatisfaction and organizational commitment are considered the primary drivers of turnover in the attitude-based model of turnover (Griffeth, Hom, & Gaertner, 2000) and have also been associated with job performance (T. W. Lee et al., 2004). We therefore control for job satisfaction and organizational commitment to partial out their effects on job performance and turnover.

Perceived organizational support (POS). Another alternative explanation is that it is not employees' perceptions of career opportunities that matter, but rather employees' perceptions that the organization cares about their careers. Indeed, organizational support theory suggests, and empirical research has demonstrated, that employees' perceptions that the organization cares about them (e.g., POS) positively relates to job performance and retention (Rhoades & Eisenberger, 2002). Because our focus is on career issues, we control for perceptions of organizational career support (POS–career) when predicting job performance and turnover. Kraimer and Wayne (2004) found that POS–career strongly correlated with generalized POS (r = .77; .85 when adjusted for attenuation due to lack of reliability).

Competencies/skills. With regard to job performance in particular, an alternative explanation is that development support leads to development activities that increase employees' skills and competencies (Kozlowski & Farr, 1988). It is thus ability, rather than or in addition to motivation, that explains the positive relationship between OSD and performance. We therefore include a measure of employees' technical and managerial skills (as rated by the supervisor) to control for the effects of skills and competencies on job performance.

Perceived external job alternatives. Turnover theories have recognized, and research has demonstrated, that perceived external job alternatives positively impact turnover (Griffeth et al., 2000). We therefore control for perceived external job alternatives in order to partial out the effects of external alternatives from the effects of internal career opportunities in our study.

Method

Pilot Study

Purpose of pilot study. We conducted a pilot study to develop and assess the validity of our measures for organizational support for development (OSD) and perceived career opportunity (PCO) to be used in the primary data collection. Our strategy was to examine the convergent and discriminant validity of our measures against a number of other conceptually similar, but distinct measures. With regard to OSD, we believe it is conceptually related to, yet distinct from, perceived organizational support (POS; Eisenberger, Huntington, Hutchison, & Sowa, 1986), and specifically career support (Kraimer & Wayne, 2004). POS–career is defined as the "extent to which the organization cares about the employee's career needs" (Kraimer & Wayne, 2004, p. 218). In comparison, our OSD construct is concerned with whether the organization provides support for employee development. Thus, the two constructs differ in terms of the content of the support and whether the support is targeted to the focal employee (POS) versus all employees (OSD). We thus seek to demonstrate that OSD is distinct from POS–career. To assess convergent validity, we examined whether employees' participation in developmental activities predicted their perceptions of OSD as we predicted in Hypothesis 1.

With regard to PCO, we believe it shares some conceptual similarity, but is distinct from, POS–career, perceived career plateau, and satisfaction with promotion. POS–career and PCO differ in terms of content (career support vs. job opportunities) and directional focus (organization's treatment of employee vs. employee's assessment of work environment). A career plateau has traditionally been defined as "the point in a career where the likelihood of additional hierarchical promotion is very low" (Ference, Stoner, & Warren, 1977, p. 602). Career plateau is viewed as a subjective perception that occurs in later career stages and is thought to be a function of such factors as the organization's hierarchical structure (or lack of hierarchy), negative assessments of the individuals' capabilities by organizational managers, or personal preferences to avoid additional responsibility (T. D. Allen, Russell, Poteet, & Dobbins, 1999). Another related construct is satisfaction with promotions, which is concerned with the extent to which employees are satisfied with the organization's promotion policy and administration of that policy (i.e., fairness of procedures). It is believed to be a function of the frequency of promotions, the process for determining promotions, and the desirability of promotions (Balzer et al., 1997). Like perceived career plateau, satisfaction with promotions is based on an assumption that individuals desire hierarchical promotions or increased responsibility. In comparison, PCO does not assume one desires hierarchical promotions (although this desire is not precluded from our construct) or is in a later career stage. In sum, our PCO construct differs from these other constructs in that it is concerned with perceptions of internal job opportunities that match one's career goals and interests, irrespective of the level of career support provided by the organization, the type of job movement (vertical or lateral) necessary to obtain that opportunity, or the fairness of the process to obtain that position. We thus seek to demonstrate that PCO is distinct from POS–career, perceived career plateau, and promotion satisfaction. We also examine the convergent and discriminant validity of PCO by examining the correlations among these related constructs, as well as other attitudes including career commitment, career satisfaction, organizational commitment, job tenure, and age.

Pilot study sample and measures. We collected survey data via the Internet from 156 salaried employees (representing a 70% response rate) working in the human resources (HR) department of a *Fortune* 100 insurance company. Demographic composition of this sample was as follows: 35% were male and 65% were female; 80% were White, 7% were Black, 6% were Hispanic, 5% were Asian, and 2% were other races; 9% had a high school diploma, 62% had a bachelor's degree, and 29% had a master's degree as their highest level of educational attainment; average age was 40 years; and average organizational tenure was 12.5 years. The survey included our new scale items to measure our two focal constructs plus other established scales to help demonstrate the validity of our scales.

We designed six items to measure OSD. The items were designed to capture the extent to which employees perceive that the organization offers programs and opportunities that develop employees' skills and abilities. We incorporated both managerial and technical skill capabilities in our items on the basis of research by Schein (1978) that emphasized that employees, to varying degrees, are concerned with developing managerial and technical capabilities (see Table 1 for items). We designed four items to measure PCO. Consistent with our definition, the items assessed the extent to which employees perceive that there are job opportunities within the organization that match their career goals and interests (see Table 1 for items). POS–career was measured with a slightly modified version of Kraimer and Wayne's (2004) four-item scale ($\alpha = .95$). We used three items to measure perceived career plateau ($\alpha = .85$) and five items to measure satisfaction with promotions (Balzer et al., 1997; $\alpha = .81$). Established scales were also used to measure career commitment (Carson & Bedeian, 1994; $\alpha = .88$), career satisfaction (Greenhaus, Parasuraman, & Wormley, 1990; $\alpha = .88$), desire for upward mobility (Wayne, Liden, Kraimer, & Graf, 1999; $\alpha = .77$), and affective and continuance commitment (Meyer, Allen, & Smith, 1993; $\alpha = .92$ and .81, respectively). Finally, the survey included single-item questions regarding the extent to which the employee participated in six specific developmental activities offered by the pilot study firm.

Pilot study results. To assess the validity of OSD, we first conducted a principal axis factor analysis (oblique rotation) of the 10 items designed to measure OSD and POS–career. The results revealed two factors with eigenvalues greater than 1. Factor 1 consisted of the six OSD scale items and explained 67% of the variance (*eigenvalue* = 6.71). Factor 2 consisted of the four POS–career items and explained 11% of the variance (*eigenvalue* = 1.14). All items loaded above .68 on their respective factor and, importantly, all cross-loadings were below .15, demonstrating discriminant validity between these two scales. The six items to measure OSD demonstrated good reliability ($\alpha = .92$). In addition, providing evidence of convergent validity as well as preliminary support for Hypothesis 1, a regression analysis indicated that employees' participation in managerial skills training ($\beta = .21$), retirement planning workshops ($\beta = .17$), and informal career planning discussions with their boss ($\beta = .20$) each significantly ($p < .05$) related to OSD and together explained 10% of the variance.

Table 1
Results of Confirmatory Factor Analysis of OSD and PCO Scale Items

Scale item	Organizational support for development (OSD)	Perceived career opportunity (PCO)
My organization has programs and policies that help employees to advance in their functional specialization.	.87	
My organization provides opportunities for employees to develop their specialized functional skills.	.85	
My organization has programs and policies that help employees to reach higher managerial levels.	.82	
My organization has career development programs that help employees develop their specialized functional skills and expertise.	.77	
My organization provides opportunities for employees to develop their managerial skills.	.65	
My organization has career development programs that help employees develop their managerial skills.	.58	
There are career opportunities within [Company] that are attractive to me.		.85
There are job opportunities available within [Company] that are of interest to me.		.78
[Company] offers many job opportunities that match my career goals.		.57

Note. Model fit: *comparative fit index* (*CFI*) = .96, *adjusted goodness-of-fit index* (*AGFI*) = .90, *root-mean-square error of approximation* (*RMSEA*) = .09, *standardized root-mean residual* (*SRMR*) = .07. $n = 287$.

To assess the distinctiveness of PCO from its related constructs, we conducted a principal axis factor analysis that included all scale items designed to measure PCO, perceived career plateau, satisfaction with promotions, and POS–career. The results of this analysis (oblique rotation) revealed three factors with eigenvalues greater than 1.0, explaining a total of 68% of the variance. Factor 1 consisted of the four POS–career items and one satisfaction with promotion item, explaining 43% of the variance (*eigenvalue* = 6.81). Factor 2 included the career plateau and remaining satisfaction with promotions scale items, explaining 16% of the variance (*eigenvalue* = 2.56). Factor 3 consisted of the three PCO items and explained 9% of the variance (*eigenvalue* = 1.52). One of the PCO items ("I believe that I can achieve my career goals within this company") did not load above .30 on any factor, and thus it was deleted from the PCO scale. The remaining three PCO scale items had factor loadings greater than .64 on their factor and had acceptable reliability ($\alpha = .84$).

We further demonstrated convergent and discriminant validity for the PCO construct through the pattern of correlations among the variables in the nomological network of relationships surrounding PCO. PCO negatively correlated with perceived career plateau ($r = -.45$, $p < .01$) and positively correlated with satisfaction with promotions ($r = .43$, $p < .01$) and POS–career ($r = .40$, $p < .01$), as we theoretically expected. Further, PCO shared some conceptual overlap with satisfaction with promotions and POS–career, as all three variables correlated with career satisfaction and affective commitment. PCO differed from satisfaction with promotions in that the latter was correlated (negatively) with job tenure and age, whereas PCO was not related to job tenure and age. POS–career positively correlated with continuance commitment, whereas PCO was not correlated with continuance commitment. PCO and perceived career plateau did not correlate with any overlapping criterion variables, demonstrating discriminant validity between these two constructs (detailed results available from the authors upon request).

We therefore concluded that our measures for OSD and PCO demonstrated sufficient convergent and discriminant validity with other related variables to warrant their use in the primary study.

Primary Study

Procedure and sample. We collected survey data from exempt-level employees (those not entitled to overtime pay by law) in a *Fortune* 500 manufacturing company headquartered in a Northeastern city of the United States. Turnover data on the participating employees were obtained from company records 1 year later. In the year we collected turnover data, the company had a turnover rate (9%) that was somewhat lower than the national turnover rate for the durable goods manufacturing industry (13% national rate; Stephens & Riley, 2005). The company used a mixed internal/external staffing strategy. That is, although the company commonly fills higher level positions through internal promotions, they also regularly recruit externally to fill positions at all levels. Internal career paths were flexible such that an employee could pursue a career within function (e.g., sales career paths), within division, or across functional and divisional boundaries. Most U.S. employees had access to the same number and type of development activities offered by the organization, regardless of function, division, or geographic location. The one exception is that only employees identified by senior managers for the "high-potential" program were eligible to participate in the executive management training programs designed in partnership with a nearby university.

To collect the survey data, we employed a stratified sampling strategy in which we randomly chose 512 employees from the organization's U.S. facilities so that all major functions at the corporate level (e.g., production, research & development, marketing, accounting), as well as plant management, sales, and service personnel, were represented in the sample. In constructing the employee sample, the only constraint was that no person receive both the employee and supervisor survey (on which we assessed employee job performance) and that any given supervisor rate at most three employees. Surveys were assigned code numbers so that we could match employee and supervisor surveys upon return. An HR representative within the company provided us with the home addresses for employees and their supervisors. Surveys, along with a letter of endorsement from the vice president of HR, were then mailed to the homes of the 512 employees and their corresponding supervisors. Employees and supervisors were as-

sured confidentiality and were instructed to complete the survey and return it directly to the first author in the postage-paid envelope provided. The original survey was followed by a postcard reminder 1 week later and another complete survey packet to nonrespondents 3 weeks after that.

A total of 290 employees (57% response rate) and 326 supervisors completed surveys, with 211 of these being matched employee–supervisor dyads. Of the 290 employee respondents, nine were involuntarily terminated during the subsequent year and 17 had missing data on variables of interest; thus, we eliminated 26 respondents from our analyses. Our final sample size was therefore 264 employees (51% effective response rate) for testing Hypotheses 1, 2, 3, and 5 and 198 employee–supervisor dyads (39% effective response rate) for testing Hypothesis 4. Within these 198 dyads, supervisors rated an average of 1.31 employees, with 71% of the supervisors rating only one employee. Employee respondents did not significantly differ from nonrespondents in terms of job performance ratings, $t(324) = -1.04$, $p = .30$, or voluntary turnover, $\chi^2(1) = 0.07$, $p = .79$. The average age of employee respondents was 45 years; 67% were male and 33% were female; 79% were married; and 93% were White, 1% were Black, 1% were Hispanic, 2% were Asian, and 3% were other races. Seven percent held a high school diploma as their highest degree, 25% held an associate's degree, 43% held a bachelor's degree, and 25% held a master's or higher degree.

Measures.

Participation in formal developmental activities. On the basis of preliminary interviews with the director of training and development at our participating organization, we identified six types of developmental activities to include on the survey: (a) workshops/computer-based training classes to develop technical skills, (b) workshops/computer-based training classes to develop managerial skills, (c) career planning workshops, (d) educational courses that qualified for tuition reimbursement, (e) job rotations into different divisions within the company, and (f) job rotations into different functional areas within the company. We asked employees to indicate, on a scale from 1 (*not at all*) to 5 (*a very large extent*), the extent to which "you have participated in the following career development activities while employed by [company name]. Compare yourself to other colleagues in your company." We averaged the first three items (a–c) to form a composite score to measure participation in training/workshops ($\alpha = .64$). We used the single item (Item d) to measure participation in the tuition reimbursement program. The two job rotation items (e and f) were averaged to measure participation in job rotations ($\alpha = .79$). Last, the director of training and development provided us with the list of employees who were in the high-potential program at the time of survey distribution. Employees themselves did not necessarily know if they were in the high-potential program. We coded participation in the high-potential program as 1 = *yes*, 0 = *no*. In our sample, 38% of the employees were in the high-potential program.

Leader–member exchange (LMX). LMX was measured using Liden and Maslyn's (1998) 12-item Multidimensional Leader–Member Exchange (MDM–LMX) Scale. An example item is "I like my supervisor very much as a person." Responses were made on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). Because we did not hypothesize differential effects for the dimensions of LMX, we averaged the 12 items to form a composite score for LMX ($\alpha = .94$). Using confirmatory factor analysis, Liden and Maslyn found support for a hierarchical structure to the scale in which the four dimensions fell under a higher (or global) LMX factor, thus justifying the use of a composite for all 12 LMX items.

Career mentoring. We used four items from Dreher and Ash's (1990) Career Mentoring Scale. We selected the four (of eight) items that had the highest factor loadings on the Career Mentoring factor in a factor analysis of the data reported in (Kraimer, Seibert, & Yuan, 2005). Respondents were asked to indicate, on a scale from 1 (*not at all*) to 5 (*a very large extent*), the "extent to which an influential or more experienced manager has engaged in the following activities in order to help you develop your career while at [company name]." Two example items are "given or recommended you for challenging assignments that present opportunities to learn new skills" and "referred you for assignments that increased your contacts with managers in different parts of the company." The four items were averaged ($\alpha = .90$).

Organizational support for development (OSD). We used the same six items as in our pilot study to capture the extent to which the employee perceives that the organization offers programs that develop employees' skills and abilities. The scale items appear in Table 1. Respondents indicated the extent to which they agreed with each statement on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). We averaged scores to the six items ($\alpha = .89$).

Perceived career opportunity (PCO). We used the average of the three retained items from the pilot study to create a scale score for PCO ($\alpha = .78$; see Table 1 for scale items). The items were measured on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). To address concerns that a three-item scale may not sufficiently capture our PCO construct, we subsequently developed three additional items and administered the six-item version (our three original items plus three new items) to 160 part-time master of business administration (MBA) students enrolled at a private U.S. university (average age was 28 years; 68% were male and 32% were female). The three-item scale ($\alpha = .85$) used in the current study significantly correlated at $r = .95$ ($p < .01$) with the six-item scale ($\alpha = .91$).

Job performance. Employees' supervisors were asked to rate the named employee using a 5-point scale ranging from 1 (*needs much improvement*) to 5 (*excellent*) on the four job role items from Welbourne, Johnson, and Erez's (1998) Role-Based Performance Scale. Example items are "quantity of work output" and "quality of work output." We averaged responses to the items to create a scale score ($\alpha = .82$).

Turnover. One year after the survey administration, a company representative provided us with turnover data from company records. Turnover was coded 1 if the employee had voluntarily left the company and 0 if the employee was still employed with the company. Nine percent of those included in the analyses had left the company voluntarily.

Control variables. The control variables were measured on the employee survey with a response scale from 1 (*strongly disagree*) to 7 (*strongly agree*), unless otherwise indicated. Cronbach alphas for multiple item measures appear in Table 2. We measured job satisfaction by averaging the scores to Seashore, Lawler, Mirvis, and Cammann's (1983) three-item Overall Job Satisfaction Scale. Organizational commitment was measured by averaging the

Table 2
Descriptive Statistics and Correlations

Variable	*M*	*SD*	α	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Performance	4.07	0.69	.82	—																
2. Voluntary turnover	0.09	0.28		−.07	—															
3. Organizational support for development	4.62	1.13	.89	.23**	−.00	—														
4. Perceived career opportunity	4.80	1.24	.78	.25**	−.16**	.29**	—													
5. Participation in formal development activities	2.49	0.79	.64	.06	.05	.36**	.16**	—												
6. Participation in job rotations	1.76	1.02	.79	.03	−.05	.10	.27**	.16**	—											
7. Participation in tuition reimbursement	2.38	1.45		.05	−.02	.04	.01	.29**	.10	—										
8. Participation in high-potential program	0.38	0.49		.18**	−.10	−.04	.29**	.05	.18**	.09	—									
9. Leader–member exchange	5.34	1.15	.94	.38**	−.15*	.32**	.20**	.10	.11	−.00	.08	—								
10. Career mentoring	2.82	1.06	.90	.23**	−.09	.34**	.42**	.29**	.35**	.13*	.38**	.32**	—							
11. Job satisfaction	5.60	1.14	.84	.25**	−.23**	.42**	.32**	.21**	.15*	.14*	.12	.46**	.34**	—						
12. Organizational commitment	5.06	1.11	.86	.25*	−.11	.36**	.34**	.19**	.14*	.21*	.12	.29**	.32**	.53**	—					
13. POS–career	4.55	1.26	.93	.31**	−.07	.55**	.39**	.28**	.13*	.10	.10	.41**	.40**	.62**	.37**	—				
14. Competencies and skills	5.21	1.34	.92	.64**	−.09	.16*	.25**	.15*	.06	.06	.38**	.22**	.35**	.12	.16*	.19**	—			
15. Perceived external job alternatives	4.83	1.42	.84	.02	.06	.11	.11	.07	−.03	−.02	.21**	.07	.16*	.17**	.03	.16*	.09	—		
16. Education level	2.86	0.87		.11	−.05	−.05	.15*	−.06	.05	−.07	.53**	−.03	.22**	−.04	−.01	−.01	.25**	.15*	—	
17. Sex (1 = *male*, 0 = *female*)	0.67	0.47		−.12	−.01	.05	.09	−.02	.02	−.10	.03	.08	.02	−.07	−.05	−.01	.04	.14*	.11	—

Note. Sample size was 264 for all variables except job performance. For job performance, sample size was 198 and was rated by the supervisor. POS = perceived organizational support.
* $p < .05$. ** $p < .01$.

scores to Meyer et al.'s (1993) six-item Affective Commitment Scale. POS–career was measured with Kraimer and Wayne's (2004) four-item scale. Competencies and skills were measured by asking supervisors to rate the employee on six items we developed to assess employees' managerial and technical skills. Two example items are "This employee has the skills and abilities required to supervise and manage others effectively" and "This employee can handle difficult technical problems in his/her specialized area." Finally, we modified three items from D. G. Allen and Griffeth's (2001) Perceived External Job Alternatives Scale so that the items clearly asked about job alternatives external to the company.

In addition to our theoretically derived control variables, we also considered several demographic characteristics—age, organizational tenure, education level, marital status, and sex—that have been shown to be related to job performance (Waldman & Avolio, 1986) or turnover (Griffeth et al., 2000). Age and organizational tenure were measured on the employee survey with open-ended questions in terms of years. Sex (0 = *female*, 1 = *male*), marital status (0 = *single*, 1 = *married*), and education level (1 = *high school degree*, 2 = *some college or associate's degree*, 3 = *bachelor's degree*, and 4 = *master's degree or higher*) were each measured with categorical response options.

Analyses and results. The descriptive statistics and correlations for all study variables appear in Table 2.

Preliminary analyses. We first conducted a confirmatory factor analysis to confirm a two-factor structure of the OSD and PCO scale items. The two-factor model, with correlated latent factors, fit the data well, $\chi^2(26) = 72.05$, $p < .01$; *comparative fit index* (*CFI*) = .96, *adjusted goodness-of-fit index* (*AGFI*) = .90, *root-mean-square error of approximation* (*RMSEA*) = .09, *standardized root-mean residual* (*SRMR*) = .07, and fit better than the model in which the correlation between the two latent factors was set equal to 1.0, $\Delta\chi^2(1) = 36.01$, $p < .01$; *CFI* = .93, *AGFI* = .85, *RMSEA* = .11, *SRMR* = .23. In the two-factor model, the latent factors had a statistically significant path estimate to all of their scale items ($p < .01$), and they are reported in Table 1. The correlation between the two latent factors was .27 ($p < .01$). These results support the distinctiveness of these two constructs.

We next conducted analyses to determine whether it was necessary to control for all five demographic characteristics. By eliminating control variables uncorrelated with the dependent variables we avoided potential spurious effects that controls may have when they are significantly related to the predictor, but not the criterion variables (i.e., we decrease Type I error), and we do not unnecessarily reduce our statistical power (Becker, 2005). In separate regression equations in which each of our three endogenous variables was regressed on these five potential control variables, none of the demographic variables predicted OSD, only sex significantly predicted job performance, and only education significantly predicted turnover. Thus, we control for sex and education in their respective regression equations.

Hypothesis testing. We first tested Hypotheses 1–3 with a single ordinary least squares (OLS) regression equation in which we regressed OSD on the antecedent variables. We used hierarchical OLS regression to test Hypothesis 4 (job performance) and logistic regression to test Hypothesis 5 (turnover). In the regression equations for the latter two hypotheses, the variables were entered in three steps. First, the control variables were entered. Second, the centered scores for OSD and PCO were entered. Third, the inter-

action term for OSD × PCO was entered. We used the centered scores of the predictor variables to create the interaction term in order to improve interpretation of the interaction effect.

Table 3 reports the results for the hypothesized antecedents of OSD. Of the developmental activities, the beta weight for participation in training/workshops was statistically significant ($p < .01$) and positive, supporting Hypothesis 1b. The beta weight for participation in the high-potential program was significant ($p < .01$), but negatively related to OSD, while the beta weights for participation in job rotations and the tuition reimbursement program were not statistically significant. Thus, Hypotheses 1a, 1c, and 1d were not supported. The beta weights for both LMX and career mentoring were each statistically significant ($p < .01$) and positive, providing support for Hypotheses 2 and 3. Together, the hypothesized antecedents explained 25% of the variance in OSD.

Table 4 shows the results for job performance. Although OSD did not significantly relate to job performance when entered in Step 2 after the control variables, $\Delta F(2, 190) = 0.23$, $p > .05$, the interaction term (OSD × PCO) was statistically significant when entered in Step 3 and explained an additional 3% of the variance, $\Delta F(1, 189) = 11.06$, $p < .05$ (see third column of Table 4). Thus, PCO moderated the effect of development support on job performance. We probed for the nature of the interaction effect by plotting the regression equation for OSD and job performance at 1 standard deviation above (high PCO) and below (low PCO) the mean of PCO (Cohen, Cohen, West, & Aiken, 2003; see Figure 1A). Post hoc analyses of the simple slopes demonstrated that development support positively related to job performance when PCO was high ($b = 0.21$, $p < .01$) but was not related to job performance when PCO was low ($b = -0.001$, $p > .05$). Thus, Hypothesis 4 was supported.

Table 5 shows the results for turnover. As revealed in the third column, the interaction of OSD and PCO significantly related to turnover after the controls and main effects were entered into the equation, $\Delta\chi^2(1) = 5.45$, $p < .05$. The proportional improvement pseudo R^2 between Step 3 (full model) and Step 1 (control variables only) was 7.4%. We probed the nature of the interaction effect by modeling the relationship between OSD and the probability of turnover at high and low values of PCO. As shown in Figure 1B, the nature of the interaction effect is such that development support decreased the probability of turnover when career opportunity was high ($b = -0.48$, $p < .05$) but increased the probability of turnover when career opportunity was low ($b = 0.52$, $p < .05$). These results provide support for Hypothesis 5.

Table 3
Regression Results Predicting Organizational Support for Development

Predictor variable	β
High-potential program	−.16**
Participation in training/workshops	.29**
Participation in job rotations	−.04
Participation in tuition reimbursement program	−.06
Leader–member exchange	.22**
Career mentoring	.27**
Model F	15.61**
Model R^2	.27
Model adjusted R^2	.25

Note. $n = 264$. Standardized regression coefficients are reported.
** $p < .01$.

Table 4
Regression Results Predicting Job Performance

Predictor variable	Step 1	Step 2	Step 3
Sex (1 = *male*, 0 = *female*)	−.14*	−.14*	−.14**
Job satisfaction	.03	.03	.06
Organizational commitment	.08	.07	.05
POS–career	.15*	.14*	.10
Competencies and skills	.60**	.60**	.60**
Organizational support for development (OSD)		.04	.06
Perceived career opportunity (PCO)		.01	.03
OSD × PCO			.17**
ΔR^2 for step	.48	.00	.03
Model F	35.12**	24.95**	24.37**
Model adjusted R^2	.46	.46	.49

Note. $n = 198$. Standardized regression coefficients are reported. POS = perceived organizational support.
* $p < .05$. ** $p < .01$.

Discussion

Nearly 30 years ago, Mobley, Griffeth, Hand, and Meglino (1979) observed that career considerations may be a more impor-

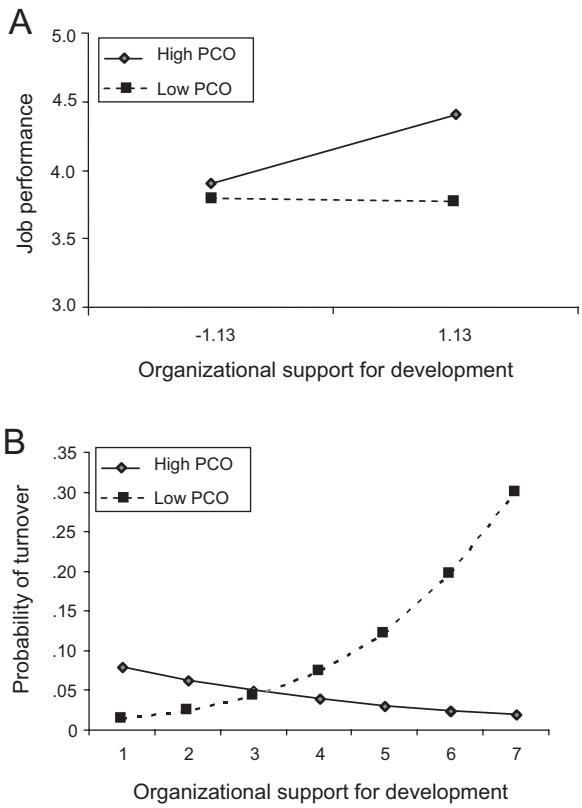

Figure 1. Interaction effects of Organizational Support for Development × Perceived Career Opportunity (PCO) for job performance (Panel A) and probability of turnover (Panel B).

Table 5
Logistic Regression Results Predicting Turnover

Predictor variable	Step 1	Step 2	Step 3
Education	.68	.73	.67
Job satisfaction	.42**	.40**	.36**
Organizational commitment	1.10	1.14	1.16
POS–career	1.34	1.38	1.56
Perceived external job alternatives	1.33	1.29	1.24
Organizational support for development (OSD)		1.35	1.02
Perceived career opportunity (PCO)		.69*	.71
OSD × PCO			.67*
χ^2 for block	18.24**	4.82	5.45*
χ^2 for model	18.24**	23.05**	28.50**
−2 log likelihood	137.96	133.14	127.69
R^2 (Cox & Snell, Nagelkerke)	.07, .15	.08, .19	.10, .23

Note. $n = 264$. Exp(B) is reported; values > 1.0 indicate a positive effect values $= 1.0$ indicate no effect, and values < 1.0 indicate a negative effect. The significance level is based on the Exp(B)'s associated Wald statistic. POS = perceived organizational support.
* $p < .05$. ** $p < .01$.

tant determinant of employee turnover than employees' (dis)satisfaction with their current jobs; yet, to date, research has not directly addressed this issue. Our study did so. Our primary finding is that the interaction of employees' perceptions of organizational support for development (OSD) with perceived career opportunity (PCO) significantly predicted both job performance and turnover, after accounting for other job attitudes and perceptions commonly associated with these outcomes. Our results demonstrated that when employees perceive many attractive career opportunities in the organization, OSD translates into higher job performance and lower incidence of turnover. Conversely, development support from the organization actually serves to increase turnover when employees perceive few career opportunities that match their career goals and interests within the organization. In addition, we found that employees' participation in training/workshops, leader–member exchange (LMX) quality, and career mentoring support positively related to their perceptions that the organization supports employee development.

Theoretical Implications

Our study contributes to the management development literature in two ways. First, our study recognizes that perceptions of OSD and career opportunities are two distinct constructs and that employees need to perceive high levels of both development support and career opportunity in order for the organization to benefit in terms of increased employee performance and lower turnover. Under conditions of high PCO, our results are consistent with social exchange theory: More developmental support is associated with higher performance and lower turnover. However, when career opportunities are low, development support was not related to performance and it increased turnover; the latter effect is possibly due to an increase in the employees' mobility capital associated with development support. These findings build on Maurer and Lippstreu (2008) by suggesting an additional boundary condition to the prevailing social exchange theory view that employees will reciprocate organizational development support with increased loyalty. Maurer and Lippstreu found that employees with low levels of learning orientation do not respond to developmental support with greater organizational commitment. We found that employees with low PCO failed to respond to developments support with higher job performance or retention. Our results suggest that employees' motivation to pursue their own career goals may also overwhelm any felt need to reciprocate the organization's provision of development support.

Our findings regarding the interaction of OSD with PCO are consistent with those of Benson et al. (2004). They found that employees who completed a degree through a tuition reimbursement program were more likely to quit, unless they had been subsequently promoted. Our results extend this finding in three important ways. First, we show employees' overall perceptions of OSD, and not just tuition reimbursement programs, may have counterproductive effects (e.g., increased turnover). Second, we show that perceptions of desirable career opportunities can embed employees who perceive developmental support; a promotion is not the only way to retain employees who have enjoyed developmental support. Finally, we extend the effect to job performance, not just turnover, as an outcome. Overall, the current results generalize the problems associated with management development support. But they also offer additional solutions to manage this problem: increase employees' perceptions of career opportunities.

A second way our study contributes to the management development literature is by directly addressing calls for research to examine how employees form perceptions that the organization cares about their growth and development (Aguinis & Kraiger, 2009). Our finding that participation in training/workshops increased OSD perceptions lends credence to the views of Aguinis and Kraiger (2009) and other scholars (e.g., Tsui et al., 1997) that training and development programs may send an important signal to employees that the organization is investing in them and that they are regarded as valuable organizational resources. Additionally, our finding that LMX and career mentoring are positively related to OSD is consistent with Ng and Feldman's (2010) study, which found that employees who spent more time developing social relationships with influential managers within the organization were more likely to participate in development activities. Together, these studies help confirm Hall's (1996) insight that interpersonal relationships would become an effective and increasingly important informal source of career development support in organizations.

One surprising finding related to sources of developmental support was that managers in the high-potential program had lower perceived OSD. Note, however, that this was true only after taking into account other sources of developmental support (i.e., the zero-order correlation between OSD and high potential was not significant). We note that, in this organization, only one developmental program was available exclusively to high-potential employees. Thus, if we assume that these high-potential employees have higher expectations for developmental support than other employees, then the negative effect might result from the inability of the organization to meet these elevated expectations. Whether high-potential individuals already have higher expectations for support than other employees, or develop these higher expectations only after being chosen for a fast-track program, is a potentially important question because the high-potential program might do more harm than good if it raises expectations that the organization

does not meet. Given the prevalence of high-potential programs in organizations, future research on the design characteristics of these programs and their effectiveness is probably justified.

In addition to our contributions to the management development literature, we advance career research by introducing the PCO construct. Consistent with notions of the boundaryless career, we proposed that perceptions of internal career opportunities that match employees' own career goals would be important to employees. Our pilot study provided evidence that PCO is distinct from the related constructs of perceived career plateau, satisfaction with promotions, and perceived organizational career support. Unlike these constructs, the PCO construct is built on the notion that each employee has unique career goals and interests that may or may not be met in their current employing organization, irrespective of the level of developmental support provided. Our results demonstrate that PCO plays an important moderating role in explaining the conditions under which OSD will increase employee retention and job performance. Our results concur with other research that has found that employees' perceptions of the match between their own career goals and the organization's plan for their careers negatively related to these employees' external job search activity (Granrose & Portwood, 1987). Overall, it appears that PCO within the organization is a construct worthy of further investigation, both as a main effect and as a moderator, in helping us better understand managers' motivation at work.

Finally, our results contribute to turnover theories by suggesting that career-related variables should be explicitly incorporated as an important driver of turnover, or as moderators of the relationship between perceptual and attitudinal variables and turnover. The fact that the interaction of OSD with PCO significantly predicted turnover after controlling for other common predictors of this outcome suggests that its effects are independent of, not through, these other variables. Although scholars have mentioned career opportunity as one means of embedding employees within an organization (e.g., Maertz & Campion, 2004; Mitchell et al., 2001), rarely has this assertion been explicitly tested. Interestingly, our positive effects for PCO are inconsistent with a recent study by Ng and Feldman (2010). They found that managers who were highly embedded in their organizations had decreased motivation to invest in internal social and human capital. Our results, on the other hand, show that individuals can be motivated to stay and perform at higher levels for their organization if career opportunity is the specific means used to embed the employee. In general, our results suggest that turnover research might be profitably extended by testing other aspects of career motivation theory (London, 1983) as a driver of employees' organizational embeddedness and turnover decisions.

Practical Implications

The theoretical viewpoint and results revealed in the current investigation suggest that organizations should seek to manage employees' perceptions of career opportunity if they wish to retain career-oriented employees. If organizational career paths do not lead to opportunities that match those desired by employees, they may choose to look for alternative jobs in the hopes that another organization will offer more desirable job paths. Given the high costs associated with staffing and turnover, expenditures for development support may be well justified, but only when employees perceive that there are career opportunities within the organization that match their career goals and interests. When many employees do not perceive desirable career opportunities, our results suggest that development support may simply provide them with the mobility capital to leave, and thus, should be provided with caution. The good news is that these variables are perceptual in nature, and raising PCO may be largely a matter of letting employees know more about the range of possibilities that are already available within the organization.

With this possibility in mind, organizations should incorporate a variety of management development and career planning practices into their HR system. Specific recommendations can be provided based on results showing which specific types of developmental activities relate to perceptions of OSD. In particular, employees' participation in formal training classes and having supportive leaders and career mentors positively related to OSD. In comparison, our correlations demonstrate that participation in a job rotation program, although not related to OSD, positively relates to PCO. Thus, in order to retain employees, it is important that organizations offer not only the typical training and informal developmental experiences such as mentoring but also offer job rotations. It may be that job rotations allow employees to learn about possible jobs and develop social contacts in diverse parts of the organization. By strategically developing such programs, organizations will be able to build their employees' human capital and provide them with career insight into ways they can achieve their career goals within the organization.

Strengths, Limitations, and Suggestions for Future Research

A strength of our investigation is that the sample was demographically diverse in terms of occupation, organizational tenure, and age. Thus, we do not believe that our results are due to something unique or idiosyncratic about our sample, such that these employees focused more on the external labor market compared with employees of other large manufacturing companies. In fact, because the organization that we studied prides itself on being an "employer of choice" with a relatively low turnover rate, the tests of our hypotheses may be conservative. The results might be even more robust in organizations characterized by more variance in performance and higher turnover. Another strength of our study is that we validated our measures using independent samples that allowed us to examine both criterion and discriminant validity.

One limitation of our investigation is that our sample included only exempt-level employees (those not subject to overtime pay) in a single organization; thus, we do not know whether our results generalize to nonexempt employees holding different types of jobs or those working in other industries or organizations. Such employees may not value career opportunities as much as those in the current sample. A second limitation is that the low voluntary turnover rate may have reduced our power to detect statistical significance in the prediction of turnover (Harrison, 2001). It is possible that a significant relationship between OSD and turnover might emerge in a sample with a higher turnover rate. In addition, because all of our data, except turnover, were measured cross-sectionally, a third limitation is that we cannot assess the causal relations among the formal and informal developmental activities, OSD, and job performance. For example, it is plausible that there

is a reciprocal, nonrecursive, relationship between development support and job performance, such that high-performing employees receive more formal and informal development and, therefore, perceive greater developmental support from the organization. More development support in turn motivates higher performance, especially when employees perceive many internal career opportunities. Experimental or longitudinal studies are needed to best address direction of causality. Finally, because this is an individual-level study within a single organization, we cannot account for the influence that organizational factors such as the staffing strategy, organizational culture, or top management support for learning and development may have had on employees' perceptions of OSD or career opportunities. However, we would expect these factors to influence the mean levels of OSD and/or PCO, not the relationship of these perceptions to our outcomes. Still, a multilevel study in which survey data are collected from multiple employees within several organizations is necessary to fully examine how organizational factors impact these career-related perceptions and their effect on employee performance and turnover.

In addition to examining organizational antecedents to OSD, future research should consider other types of developmental activities and work experiences, as well as individual difference variables such as learning orientation, as antecedents to perceptions of development support. A number of individual difference variables may also serve as moderators of the relationship between OSD and behavioral outcomes. For example, combining the results of Maurer and Lippstreu (2008) with our results, it may be that a strong learning orientation compensates for low PCO in determining whether developmental support is associated with higher performance or lower turnover. Future research might also explore alternative theoretical explanations for the potential negative consequences of OSD, especially among employees who do not have strong career goals or orientations. These employees might view high levels of OSD as increasing their workload, yet perceive little value in return. This perceived inequity might lead them to be less motivated or to engage in withdrawal behaviors. Another potential explanation comes from the "expanded view" of psychological contract theory. Lambert, Edwards, and Cable (2003) found that excess levels of skill development and career training inducements decreased employees' job satisfaction. They theorized that high levels of development and training (i.e., OSD) inhibit fulfillment of other, non-career-related needs; our results suggest that fulfillment of non-career-related needs might be particularly important when PCO is low.

We also encourage future research to continue to develop the nomological network of PCO. Both career motivation theory (London, 1983) and the careerist orientation literature (e.g., Feldman & Weitz, 1991) can provide foundations for examining antecedents and consequences at the individual level. For example, antecedents might include one's career self-efficacy and resilience, supervisor support, and self-initiated career strategies. A number of counterproductive work behaviors, including blaming, stealing credit, and intimidation at work, might also be better understood when viewed from the perspective of (frustrated) career goals and (counterproductive) career strategies (Bratton & Kacmar, 2004). At the organizational level, HR's labor market strategies and career path systems, the extent to which the organization has a learning culture, and the percentage of top management members who were internally promoted may all impact employees' perceptions of career opportunities.

From a methodological point of view, we encourage future researchers who study OSD to be more consistent in their definitions and operationalizations of development support. Our review of the literature found that studies defined and measured OSD in different ways (cf. Hurtz & Williams, 2009; C. H. Lee & Bruvold, 2003; Maurer et al., 2003; Noe, 1996). If this trend continues, our ability to draw conclusions about the criterion validity and generalizability of the construct will be inhibited. In this study, we offered a scale to measure employees' perceptions that the organization provides programs and practices to develop employees' skills and managerial capabilities. Our pilot test and the results of Hypotheses 1–3 provide initial discriminant and convergent validity evidence, but more research utilizing this scale is needed to further demonstrate its validity.

Conclusion

There has been a tendency for career scholars to develop self-contained theories of the career process, with career variables predicting only career behaviors such as the development of career goals or the motivation to participate in development activities. Few studies attempt to link career variables to outcomes more directly valued by organizations, such as employee performance and turnover. On the other hand, many organizational behavior/human resource management researchers do not examine employee behaviors within the larger context of employees' career goals and strategies. Rarely are career theories and variables integrated in organizational behavior/human resource management research as moderators or even as controls. Our study addressed this gap in the literature. Our results indicated that employees' perceptions of career opportunity were necessary for perceptions of OSD to increase performance and decrease the likelihood of turnover. These findings were consistent with an explanation based on an integration of social exchange and career motivation theories. The current investigation shows the importance of integrating career theories with mainstream organizational behavior/human resource management to shed new light on variables central to the field, such as performance and turnover.

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