

RESEARCH REPORT

How Can Employers Benefit Most From Developmental Job Experiences?
The Needs–Supplies Fit Perspective

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While previous empirical research showed that **developmental job experiences (DJE)** lead to positive work-related outcomes, recent studies have also pointed out their downsides. With an aim to reconcile these findings, this study explores how the fit between personal needs and organizational supplies of DJE influences affective organizational commitment and voluntary turnover, and the moderating role of career identity salience. Multiwave and multisource data on Chinese employees indicate that affective organizational commitment was higher as needs of DJE matched supplies and lower in the case of a mismatch. Affective organizational commitment was higher when needs and supplies were both high than when both were low. These relationships were stronger when career identity salience was high. Furthermore, the relationship between needs–supplies fit and voluntary turnover was mediated by affective organizational commitment. These findings imply that rather than providing universally high levels of DJE, employers should match these experiences to employees' needs.

Keywords: developmental job experiences, voluntary turnover, person–job fit, needs–supplies fit

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Developmental job experiences (DJE)—the development of employee skills and abilities through challenging job assignments or on-the-job experiences—are the method most commonly used by employers to enhance employees' knowledge and skills (CIPD, 2016). Research on the consequences of DJE has focused overwhelmingly on their positive effects: skill acquisition, career benefits, and positive work-related outcomes and behaviors. But while DJE motivate individuals to learn by exposing them to novel, diverse, and uncertain situations, the resulting stress, anxiety, and cognitive overload may also have unintended consequences: unpleasant feelings and increased turnover intention (Dong, Seo, & Bartol, 2014); emotional exhaustion and laissez-faire leadership (Courtright, Colbert, & Choi, 2014); and diminishing returns in leadership competencies (DeRue & Wellman, 2009).

We advance the literature on DJE by integrating a critical perspective that has been missed so far: person–job fit (Kristof-

Brown, Zimmerman, & Johnson, 2005), the fit between individual and job characteristics that drives employee attitudes and behaviors. Specifically, we propose that DJE that are not aligned with individual needs are detrimental to employees and organizations. We define *needs–supplies* (N-S) fit as the congruence between employees' needs and their job rewards—pay, benefits, and training, but also on-the-job development and interesting and challenging work (Cable & DeRue, 2002). Through integrating the needs–supplies fit perspective into the literature on DJE, we make the following contributions: First, unlike most papers that advocated that more DJE lead to better outcomes, we contribute to the nascent literature that shows both their negative and positive outcomes (Courtright et al., 2014; DeRue & Wellman, 2009; Dong et al., 2014). While previous research has not explored the factors that may drive these outcomes, we show that they are a function of the amount of DJE provided, which differs across individuals, determined by individual needs. Finally, we find that individuals react differently to need fulfillment based on how salient career identity is to them. Understanding the interaction between development practices and individual differences is a key direction for leadership development efforts (McCall, 2010). Although needs analysis is “widely considered as one of the most important steps” in designing development and training activities at organizations, it has been identified as one of the areas of employee development where most research is needed (Bell, Tannenbaum, Ford, Noe, & Kraiger, 2017, p. 315).

DJE represent a significant organizational investment into employees' human capital. DJE that result in negative employee

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attitudes and voluntary turnover harm these investments. Therefore, affective organizational commitment (AOC) and voluntary turnover, the outcomes we examine here, should be a key concern for organizations and an important focus of academic papers. Yet while papers on DJE have given some attention to turnover behaviors (Preenen, De Pater, Van Vianen, & Keijzer, 2011), affective organizational commitment has not been examined at all.

Unlike most studies in this stream of literature, our analyses include employees at all hierarchical levels, not only managers and executives. Most jobs today have many of the characteristics of DJE (Livingston, 2014). Having fewer support resources and less experience in dealing with complex situations, nonmanagerial employees may find it particularly hard to cope with DJE, making burnout and the resulting lack of commitment or increased voluntary turnover even more likely for them than for their higher-ranking counterparts (Courtright et al., 2014; DeRue & Wellman, 2009; Dong et al., 2014).

Theory and Hypotheses

DJE highlight the gap between employees' current skill set and the demands of the job, motivating individuals to acquire new knowledge and skills. They are typically novel and expose participants to different areas of the organization, challenging them to try new behaviors (Dragoni, Tesluk, Russell, & Oh, 2009; McCauley, Ruderman, Ohlott, & Morrow, 1994). They change old ways of thinking, by putting people in dynamic work settings where "they must solve complex problems and make choices under conditions of risk and uncertainty" (DeRue & Wellman, 2009, p. 860). The focus of DJE is the on-the-job learning and development that result from five types of job-related challenge: unfamiliar responsibilities, high levels of responsibilities, creating and managing change, working across boundaries, and managing work group diversity. The construct is conceptually distinct from job challenge, which captures the "challenging and exciting" aspect of jobs (Meyer & Allen, 1988: 198), or from job complexity, which focuses on the cognitively demanding nature of jobs: their degree of decision latitude, autonomy, and nonroutine work (Shalley & Gilson, 2004; Shalley, Gilson, & Blum, 2009). The latter two practices are primarily used by organizations to increase employees' intrinsic motivation and work satisfaction, rather than their learning and development, from jobs.

Previous papers on the consequences of DJE focused overwhelmingly on their positive effects: on-the-job learning (Preenen et al., 2011); the development of managerial competencies (Brutus, Ruderman, Ohlott, & McCauley, 2000; Dragoni et al., 2009; van Gelderen, van de Sluis, & Jansen, 2005) and leadership skills (DeRue & Wellman, 2009; Seibert, Sargent, Kraimer, & Kiazad, 2017); improved job performance (Aryee & Chu, 2012; Carette, Anseel, & Lievens, 2013); perceptions of promotability (Aryee & Chu, 2012; De Pater, Van Vianen, Bechtoldt, & Klehe, 2009; Dong et al., 2014; Seibert et al., 2017); actual promotions (De Pater et al., 2009); decreased job searching, turnover intentions, and voluntary turnover (Bingham, Boswell, & Boudreau, 2005; Preenen et al., 2011); and various positive affective outcomes such as job satisfaction (van Gelderen et al., 2005), pleasant feelings (Dong et al., 2014), positive mood (Preenen, Van Vianen, & De Pater, 2014), and emotional engagement (Courtright et al., 2014).

Three papers, however, have pointed out their possible downsides. DeRue and Wellman (2009) found that challenge boosted skill development only to some point and then exhibited diminishing returns. Jobs with very high levels of developmental job challenge required individuals to process multiple cognitive demands simultaneously and were very likely to induce cognitive overload and performance anxieties, which shifted cognitive resources away from learning. Subsequently, Dong and colleagues (2014) found that DJE were related to turnover intention and decreased advancement potential by increasing anxiety and fear of failure. Courtright and colleagues (2014) showed that developmental challenge emotionally exhausted leaders by requiring a consistently high cognitive and emotional effort, which increased strain, depleted energy, and ultimately resulted in laissez-faire leadership. In the latter two studies DJE generated both positive and negative outcomes: pleasant and unpleasant feelings, and engagement and exhaustion at the same time.

The remedies suggested included access to performance feedback for those coping with developmental challenge (DeRue & Wellman, 2009) and hiring individuals high in emotional intelligence (Dong et al., 2014) and leadership self-efficacy (Courtright et al., 2014). What this literature misses is specifying an optimal degree of DJE, and in this, the importance of person–job fit, a major predictor of employee attitudes toward job and employer, as well as overall employee engagement and performance (Kristof-Brown et al., 2005). We propose that the outcomes associated with DJE depend on the attributes of those participating in DJE.

Of the two major streams of work on person–job fit, one examines the fit between the demands of the job and individuals' abilities. We concentrate on the second type of fit: *needs–supplies fit*, or the match between a person's psychological needs or preferences and the rewards supplied by the job, including achievement and social involvement as well as money (Cable & DeRue, 2002; Edwards, Cable, Williamson, Lambert, & Shipp, 2006). Given that individuals accept jobs and stay in them primarily for the rewards offered, N–S fit may be the most important type of fit in the employment relationship (Cable & DeRue, 2002). And the erosion of lifetime employment and job security have made skill development one of employees' most critical needs (Hamori, Koyuncu, Cao, & Graf, 2015). Nevertheless, as the judgment of fit is a subjective perception, similar employees may have varying needs for DJE, and different employees may perceive the same job as offering different degrees of DJE (Cable & Edwards, 2004; Kristof, 1996).

A Mismatch Between Organizational Supplies and Personal Needs

Supplies may fit needs, fall short of them, or exceed them (Lambert, Tepper, Carr, Holt, & Barelka, 2012). Social exchange theory argues that employees generate global beliefs concerning how much the organization values their contributions and cares about their well-being, and they then reciprocate accordingly (Blau, 1964; Cropanzano & Mitchell, 2005). Growth and development opportunities tend to be perceived positively as investments and support, and boost commitment toward organizations (Mathieu & Zajac, 1990; Weng, McElroy, Morrow, & Liu, 2010). Employees who receive fewer DJE at work than they need are expected to have low commitment toward their employer, because

the deficiency signals that the employer does not understand their needs and is not supportive of their personal growth (Cable & Edwards, 2004; Edwards & Cable, 2009; Porter, 1962). When the amount of DJE received improves from deficient to desired levels, AOC is expected to increase.

When employees receive more than they need, their responses depend on the nature of the supplies (Lambert et al., 2012). They tend to react favorably when the excess supplies are “synergistic,” fulfilling a variety of needs (Edwards, Caplan, & Harrison, 1998; Lambert et al., 2012; Warr, 1994). For example, high salary may satisfy needs for respect and achievement, as well as basic needs such as housing. In other cases, the oversupply is “antagonistic” to fulfilling some needs (Edwards et al., 1998; Locke, 1976; Warr, 1994). For example, excessive job variety may challenge employees’ cognitive resources and distract them from work responsibilities (Edwards & Van Harrison, 1993; Lambert, Edwards, & Cable, 2003; Warr, 1987). DJE can be strongly associated with negative responses like fatigue, tension (Lepine, Podsakoff, & Lepine, 2005), feelings of emotional and physical resource depletion or exhaustion, and frustration (Courtright et al., 2014). When jobs are challenging beyond an expected level, people may even feel dismayed or angry (Karasek & Thorell, 1990; Van Yperen & Janssen, 2002). Thus, excess, like deficiency, may make employees doubt the employer’s ability or willingness to satisfy their needs.

Hypothesis 1: Compared to a mismatch between needs and supplies of DJE, AOC is higher when supplies of DJE match employee needs of DJE.

Varying Matches Between Organizational Supplies and Personal Needs

Attitudinal responses vary with level of fit (Caplan, 1983; Edwards & Van Harrison, 1993; Harrison, 1978; Lambert et al., 2012). Fit at high levels of both needs and supplies (“high-high” fit) is related to more favorable outcomes than “low-low” fit, for several reasons. First, high supplies on one dimension generate other supplies that fulfill needs on other dimensions (Edwards & Parry, 1993; Edwards & Rothbard, 1999; Kristof-Brown et al., 2005; Lambert et al., 2012). Jobs that provide high levels of DJE, for example, also supply high levels of status, authority, or even pay, and may satisfy fundamental needs besides the need for developmental challenge, such as needs for self-worth and self-esteem (Baumeister & Leary, 1995; Ryan & Deci, 2000; White, 1959). The “extra” positive feelings that are brought about by fulfilling these other needs will be reciprocated with further favorable attitudes toward the employer (Blau, 1964; Gouldner, 1960).

Social exchange theorists argue that employees’ obligations to reciprocate are contingent on the imputed value of the benefit provided (Blau, 1964; Gouldner, 1960). Organizational rewards have a different value to different employees (Homans, 1958), in relation to the intensity of the recipient’s need (Gouldner, 1960). Satisfaction of a less intense need is less valuable than satisfaction of a higher need and is reciprocated with less favorable attitudes.

Hypothesis 2: AOC is higher when personal needs for and organizational supplies of DJE match at a high versus at a low level.

The Moderating Role of Career Identity Salience

The relationship between any specific form of person–organization fit and an individual outcome is influenced by the importance of that form of fit to the individual (Kristof, 1996). Career identity salience (CIS), the importance and centrality of career in an individual’s self-concept (Major, Klein, & Ehrhart, 2002; Strauss, Griffin, & Parker, 2012), has an important impact on the relationship between N-S fit and AOC, because it is associated with more time spent on career issues, more extensive career exploration, and search for the best fit (Greer & Egan, 2012; McArdle, Waters, Briscoe, & Hall, 2007). Individuals with high levels of CIS are more likely to pay close attention to DJE, which they perceive as a vehicle for their career progression. Such individuals may be the most appreciative of a fit, and the most likely to be concerned about a lack of fit between their needs and the supplies of DJE.

Hypothesis 3a: The relationship between the N-S fit of DJE and AOC is stronger at higher levels of career identity salience.

Since DJE are instrumental in skill acquisition (Dragoni et al., 2009) and promotions (De Pater et al., 2009), those high on CIS may be less likely to reciprocate oversupplies of DJE with lower AOC, but they may be especially concerned about DJE supplies lagging behind their needs, which they perceive as their employer underinvesting in their development, and reciprocate with lower AOC.

Hypothesis 3b: For individuals high on career identity salience, undersupply of DJE is related to lower AOC than oversupply.

Needs–Supplies Fit and Voluntary Turnover

We expect voluntary turnover to be associated with N-S fit in DJE through two mechanisms. The first is the indirect path between N-S fit and voluntary turnover via AOC. Meta-analyses reveal that N-S fit was moderately ($p = .37$) correlated with organizational commitment (Kristof-Brown et al., 2005). Among the three components of organizational commitment— affective, continuance, and normative commitment—AOC had the strongest negative correlation ($p = -.22$) with voluntary turnover (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Second, there may also be a direct relationship between the N-S fit in DJE and voluntary turnover. Employees may prefer to stay with their current employer not necessarily because of high emotional attachment and identification, but merely because they are comfortable in their jobs. Kristof-Brown and colleagues (2005) find that N-S fit has a significant direct negative relationship with intention to quit ($p = -.50$), while Tak (2011) shows that person–organization fit decreases turnover.

Hypothesis 4: Needs-supplies fit of DJE is negatively associated with voluntary turnover, and this relationship is mediated by AOC.

Figure 1 shows our hypothesized model.

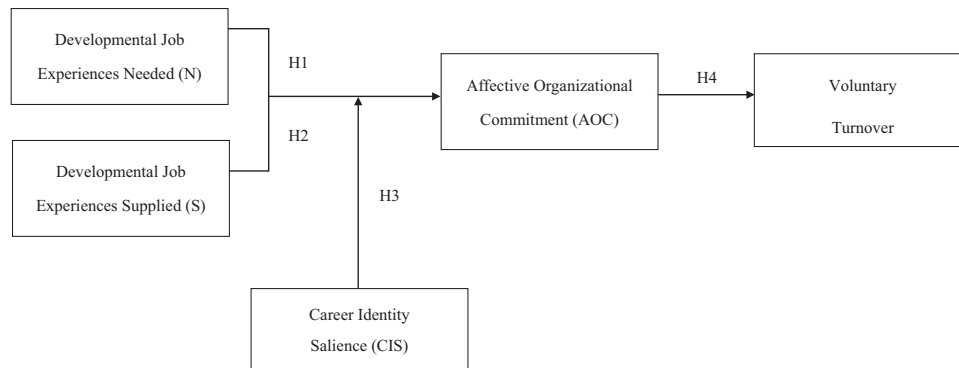


Figure 1. The conceptual model.

Method

Sample and Data Collection

This research was conducted in four phases and used information from both surveys and archival records.¹ The sample includes employees from seven firms in eastern China, in four industries: chemicals (two firms), hospitality (two firms), exhibitions and advertisement (two firms), and textiles (one firm). In phase 1 we measured needs and supplies of DJE. We surveyed all literate full-time employees at all hierarchical levels in the seven firms (760 employees) and received 544 responses, a 71.6% response rate. Three to four weeks later, in phase 2, we measured CIS and AOC. The survey was answered by 482 out of the 544 initial respondents, an 88.6% response rate. From these data, we generated 430 final matched valid responses. In phase 3 (one to two weeks after phase 2), we collected demographic information on the respondents from archival HR records. We collected voluntary turnover information from HR archives 14 months after phase 3, after semiannual bonuses and benefits were handed out to employees and voluntary turnover peaked (phase 4).

Measures

All survey items were measured on a 1–5-point Likert scale except where we specify otherwise. Items from the English-language literature were translated from English to Chinese following the back-translation procedure (Brislin, 1980).

Developmental job experiences. We use the shortened version of the Job Challenge Profile (Ruderman, McCauley, & Ohlott, 1999) developed by Dong and her colleagues (2014) to measure needs for and supplies of DJE. To measure needs (N), we asked respondents to indicate how much they wanted specific types of DJE (1 = *not at all*, 5 = *to an extreme degree*). To measure supplies (S), respondents were asked how well each statement described what they experienced in their current job (1 = *not at all descriptive*, 5 = *extremely descriptive*; Ruderman et al., 1999). The items were the same for supplies and needs. Related empirical studies (Edwards & Van Harrison, 1993; Lambert et al., 2012) followed a similar structure: They asked two sets of questions about the same set of items. We removed two items because of low factor loadings. The Cronbach's alphas are .93 (Omega total = .93) on needs and .94 (Omega total = .94) on supplies. Appendix

1 in the online supplemental materials contains additional information on the components of DJE.

Affective organizational commitment (AOC). We used Chen and Francesco's (2003) Chinese version of Meyer and Allen's (1997) 8-item scale of AOC. This measure has high validity (Wu et al., 2006) and high internal reliability (Hom et al., 2009). The Cronbach's alpha is .87 (Omega total = .87). *Career identity salience* was assessed by the scale developed by Strauss and colleagues (2012). A sample item is "The major satisfactions in my life come from my work." Its Cronbach's alpha was .72 (Omega total = .75).

Voluntary turnover. The HR departments of the sampled firms categorized each turnover event as "voluntary" or "involuntary" on the basis of a supervisory and a corporate exit interview. For example, retiring at retirement age counted as involuntary turnover, while leaving to set up one's own business counted as voluntary turnover. Since voluntary turnover is of great concern to corporations operating in the tight Chinese labor market, HR departments devoted considerable effort to keeping turnover records accurate. Since our focus is voluntary turnover, we coded respondents who left the organization voluntarily as "1," and the rest of those, who left involuntarily or who stayed, as "0" (Trevor, 2001, p. 627). Since not all voluntary turnover may damage the organization, we created an alternative measure, "dysfunctional turnover," which was "1" if the employee left voluntarily and his or her performance was in the top 90% of the organization's job performance distribution (Dalton, Krackhardt, & Porter, 1981). "0" stood for the rest, including voluntary turnover of those with job performance in the bottom 10% of the distribution, involuntary turnover, or staying with the organization. In the online supplemental materials, Appendix 2 shows the analyses with dysfunctional turnover. The project also collected data on additional attitudinal and behavioral outcomes: job satisfaction, task proactivity, and job performance. The analyses on the relationship between N-S fit and these additional variables are shown in online Appendix 3.

Control variables. Gender is a binary variable where 0 stands for male and 1 for female respondents. Age and organizational

¹ This article is the first publication from a larger dataset based on the study "Contemporary Employee Development," which is approved by Shanghai University of Finance and Economics' Research Committee.

tenure were measured in years. Education level was measured with five dummies: middle school or under; high school; 3-year college (omitted); four-year college; and master's degree or higher. Work function was measured with five dummies: administration; marketing and sales; operations; research and development; and customer service (omitted). Industry was measured with four dummies: chemicals (omitted); hospitality; exhibition and advertisement; and textiles. We also controlled for managerial level with four dummies: nonmanagerial employees (omitted); junior managers; middle managers; and senior managers.

Data Analysis

We used cross-level polynomial regressions (Cole, Carter, & Zhang, 2013) and response surface analysis to test Hypotheses 1, 2, and 3. Polynomial regressions are recommended by Edwards and Parry (1993) for examining fit effects because the three-dimensional response surface that they generate provides richer information than traditional two-dimensional analysis. Our respondents are nested in seven firms, and one-way analysis of variance (ANOVA) results showed significant differences in organizational-level means of voluntary turnover, $\chi^2(6) = 298.67$, $\text{Prob} > \chi^2 = .00$. We followed the procedures of Cole et al. (2013) and Zhang, Wang, and Shi (2012) to run cross-level polynomial regression models that account for the nested nature of our data. We regressed the dependent variable on the control variables and the five polynomial terms: needed DJE (N), supplied DJE (S), needed DJE squared (N^2), needed DJE times supplied DJE ($N \times S$), and supplied DJE squared (S^2). We then conducted special tests to examine slopes and curvatures along the two most important lines of the response surface: the $N = S$ fit line and the $N = -S$ misfit line. To facilitate the interpretation of the results and to avoid the problem of multicollinearity, we grand-mean-centered needed and supplied DJE and CIS. Since response surface analyses are sensitive to influential observations (Edwards & Cable, 2009), we identified them by using diagnostic tools commonly used in other empirical studies measuring fit (Cole et al., 2013; Lambert et al., 2012)² and by visually inspecting data plots (Fox, 1991). We identified and deleted 11 influential observations, producing a sample size of 419 for the analyses.

Results

Table 1 shows the means, standard deviations, and correlations of all variables. The mean of needed DJE is higher than the mean of organizational supplies, showing that employees generally would want more DJE than they receive. Seventy-three percent of respondents receive fewer DJE than they need, and only 17% experience oversupply. Table 2 presents the coefficients of the cross-level polynomial estimations, as well as slopes and curvature along the $N = S$ and $N = -S$ lines in the response surface. Figure 2 illustrates the related response surface.

Hypothesis 1 states that AOC is higher when needs of DJE match supplies. A significant fit effect exists only when (a) the effects of second-order polynomial terms (N^2 , $N \times S$, and S^2) are jointly significant, and (b) the curvature along the misfit line (the $N = -S$ line) is negative and significant (Edwards & Parry, 1993;

Zhang et al., 2012). Model 2 in Table 2 shows that the three second-order polynomial terms are jointly significant, $F = 4.05$, $p < .01$, and lead to an increase in R^2 ($\Delta R^2 = .02$). The misfit $N = -S$ line curves significantly downward (curvature = -1.12 , $SE = .46$, $p < .05$). This indicates that AOC is higher when the DJE supplied by the organization match individuals' needs. Any deviation from needs—either deficiency or excess—is related to lower AOC. Therefore, Hypothesis 1 is supported.

Hypothesis 2 predicts that a "high-high" fit between personal needs and organizational supplies of DJE has a larger impact on AOC than a "low-low" fit. In Model 2 of Table 2, the slope along the $N = S$ fit line is positive and significant (slope = $.20$, $SE = .05$, $p < .001$), showing that "high-high" fit is associated with a higher level of AOC than fit at a low level. This result is consistent with the response surface shape in Figure 2, where AOC is higher at the rear corner than at the front corner. Thus, Hypothesis 2 is supported.

Hypothesis 3a states that CIS moderates the relationship between needs-supplies fit and AOC. We follow the established procedure that was applied by Edwards and Rothbard (1999, p. 104) and was subsequently used by Vogel, Rodell, and Lynch (2016, p. 1572) and Lam, Lee, Taylor, and Zhao (2018, p. 252): We multiplied all five polynomial terms (N , S , N^2 , $N \times S$, and S^2) by CIS and calculated the resulting R^2 change (Snijders & Bosker, 1999). Furthermore, we did an F test for the interaction terms between CIS and the five second-order terms: $CIS \times N$, $CIS \times S$, $CIS \times N^2$, $CIS \times N \times S$, $CIS \times S^2$. A positive ΔR^2 and significant F statistic for the five interactions would support Hypothesis 3a. The results in Table 2 reveal that CIS moderates the relationship between N - S fit and AOC: The change in R^2 between Models 3 and 4 in Table 2 is positive ($\Delta R^2 = .03$), and the five quadratic interaction terms are jointly significant, $F = 3.39$, $p < .01$. Figure 3(a) and Figure 3(b) illustrate the moderation effect by depicting the cross-level polynomial response surface at high (1 SD above the mean) and at low (1 SD below the mean) levels of CIS. Table 3, which contains tests of the response surfaces, shows that when CIS is high, the curvature of the $N = -S$ line is -1.06 ($SE = .64$, $p < .05$): N - S fit is related to higher AOC and any deviation from N - S fit is associated with lower AOC. When CIS is low, the curvature of the line $N = -S$ is not significant ($q_{\text{curvature}} = -.64$, $SE = .66$, ns): N - S fit is not significantly associated with AOC. Contrary to Hypothesis 3b, neither the slope ($q_{\text{slope}} = .19$, $SE = .19$, ns) nor the quantity that represents the magnitude and direction of a lateral shift and that is calculated by $[b_2 - b_1]/[2(b_3 - b_4 + b_5)]$ is significant (shift = $.07$, $SE = .08$, ns). These results indicate that there is no directional effect; that is, no significant difference in AOC in the cases of over- versus undersupply of DJE.

Hypothesis 4 proposes that AOC mediates the negative relationship between DJE needs-supplies fit and voluntary turnover. Since our dependent variable, voluntary turnover, is dichotomous, we used logistic regression and took the block variable approach to test Hypothesis 4 (Edwards & Cable, 2009, p. 660; Lambert et al., 2012, p. 923; Matta, Scott, Koopman, & Conlon, 2015, p. 1695; Zhang et al., 2012, pp. 120–121). We first regressed the five

² The tools included leverage (more than twice the average value), studentized residuals (more than 3), and Cook's distance (more than $4/N$).

Table 1
Means, Standard Deviations, and Correlations Among Study Variables^a

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	33.18	8.97	—										
2. Gender	.50	.50	.31	—									
3. Organizational tenure	6.54	6.80	.61	.26	—								
4. Managerial level 1	.68	.47	-.32	-.24	-.36	—							
5. Managerial level 2	.16	.37	.23	.16	.20	-.64	—						
6. Managerial level 3	.12	.33	.15	.08	.22	-.55	-.16	—					
7. Managerial level 4	.04	.19	.10	.14	.11	-.29	-.09	-.07	—				
8. Developmental job experience needed (N)	3.47	.68	-.11	-.18	-.10	-.01	-.01	-.01	.05	—			
9. Developmental job experience supplied (S)	3.13	.76	-.03	-.22	-.06	-.04	-.05	.05	.10	.68	—		
10. Affective organizational commitment (AOC)	3.69	.59	.25	.15	.22	-.20	.03	.19	.10	.01	.06	—	
11. Career identity salience (CIS)	2.78	.60	-.17	.04	-.12	-.01	-.01	.06	-.05	-.10	-.11	-.05	—
12. Voluntary turnover	.20	.40	-.29	-.19	-.29	.17	-.10	-.10	-.06	.11	.10	-.26	.02

Note. $N = 419$. Correlations greater than |.09| are significant at $p < .05$, greater than |.12| are significant at $p < .01$, and greater than |.15| are significant at $p < .001$, two-tailed.

^a Appendix 4 of the online supplemental materials contains the complete correlation table that includes education level, work function, and industry.

polynomial terms on AOC and then used the resulting coefficients as weights to combine the five terms into a block variable with a weighted linear composition. The single coefficient of this block variable represents the general fit effect, while the total explained variances and estimated coefficients of other variables in the

equation are unchanged. Finally, we conducted mediation analysis using Mplus with the block variable as the independent variable, AOC as the mediator, and voluntary turnover as the dependent variable. Hypothesis 4 is supported if the confidence intervals of both the indirect effect (N-S fit on voluntary turnover via AOC)

Table 2
Cross-Level Polynomial Regressions of Work Outcomes on Fit Between Needs for and Supplies of Developmental Job Experiences^a

Variables	Affective organizational commitment (AOC)			
	Model 1	Model 2	Model 3	Model 4
Age	.01** (.00)	.01** (.00)	.01** (.00)	.01*** (.00)
Gender	-.02 (.06)	-.02 (.06)	-.02 (.07)	-.02 (.06)
Organizational tenure	-.01 (.01)	-.01 (.01)	-.01† (.01)	-.01† (.01)
Managerial level 2—junior manager	.01 (.08)	.03 (.08)	.02 (.08)	.02 (.08)
Managerial level 3—middle manager	.28** (.09)	.26** (.09)	.27** (.09)	.27** (.09)
Managerial level 4—senior manager	.31* (.15)	.32* (.15)	.33* (.15)	.36* (.15)
Developmental job experience needed (N)	.03 (.07)	.10 (.08)	.11 (.08)	.15† (.08)
Developmental job experience supplied (S)	.12† (.06)	.10 (.07)	.09 (.07)	.03 (.07)
N^2		-.29* (.14)	-.29* (.15)	-.19 (.15)
$N \times S$.51* (.23)	.52* (.23)	.40† (.23)
S^2		-.32** (.11)	-.32** (.11)	-.26* (.11)
Career identity salience (CIS)			.01 (.05)	.08 (.06)
$N \times CIS$.21† (.12)
$S \times CIS$.08 (.11)
$N^2 \times CIS$.08 (.23)
$N \times S \times CIS$.14 (.37)
$S^2 \times CIS$				-.30 (.20)
ΔR^2		.02		.03
R^2	.20	.22	.22	.25
F for the three quadratic terms		4.05**		
F for the five quadratic interaction terms				3.39**
N = S line (Fit line)				
Slope		.20 (.05)***		
Curvature		-.10 (.05)*		
N = -S line (misfit line)				
Slope		.004 (.13)		
Curvature		-1.12 (.46)*		

Note. R^2 was calculated according to Snijders and Bosker (1999). ΔR^2 refers to the change in explained variance compared to the previous model. Standard errors (SE) are reported in parentheses. Education level, work function, and industry dummies included, but not shown.

^a Unstandardized regression coefficients are reported.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$, two tailed.

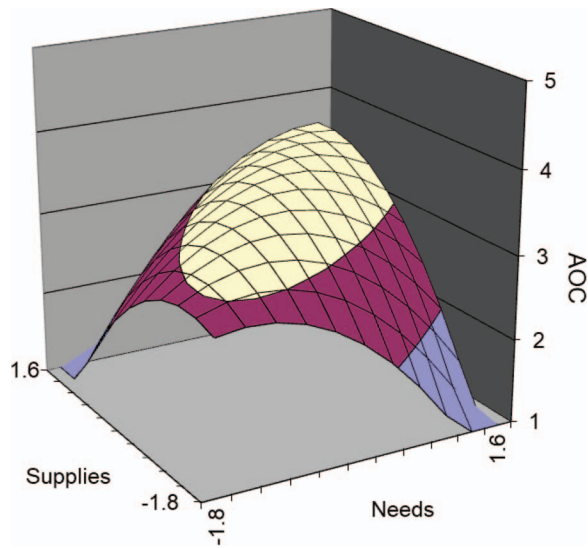


Figure 2. Effect of needs-supplies fit of developmental job experiences (DJE) on affective organizational commitment (AOC). See the online article for the color version of this figure.

and the direct effect (N-S fit on voluntary turnover) are negative and do not include zero. Table 4 shows that the direct effect of N-S fit on voluntary turnover is negative, but not significant (-1.38 , $SE = 1.35$, ns), while the indirect effect via AOC is negative and significant ($-.72$, $SE = .34$, $p < .05$). Because the 95% bias-corrected confidence interval of this indirect effect through bootstrapping 5,000 samples does not include zero ($[-1.39, -.04]$), AOC fully mediates the proposed relationship, and Hypothesis 4 is partially supported. Analyses that use “dysfunctional turnover” as the outcome variable and are shown in Supplemental Appendix 2 yield similar results, with the exception that the direct link between N-S fit and dysfunctional turnover is negative and marginally significant (-2.41 , $SE = 1.30$, $p < .10$).

We conducted additional analyses to compare the effects of an excess and a deficiency of DJE. In Table 2, the slope along the misfit line ($N = -S$) is not significant (slope = $.004$, $SE = .13$, ns), nor is the quantity that represents the magnitude and direction of a lateral shift (shift = $.002$, $SE = .06$, ns): Too much challenge and too little are equally damaging to employees’ AOC.

Most studies of DJE were conducted among managers and executives. As a robustness check, we reran the analyses on the subsample of nonmanagerial respondents. The results are the same as those from the overall sample. In further tests, we found that managerial level was not a moderator of the relationship between N-S fit and AOC. The results of t tests, shown in Appendix 5 of the online supplemental materials, reveal that there is no significant difference in the perceived supply of DJE among nonmanagerial employees, junior managers, and middle managers, although there is a significant difference between nonmanagerial employees and senior managers ($t = -1.97$, $p < .05$). Needs for DJE do not differ significantly among nonmanagerial employees, junior and middle managers, and even senior managers.

Discussion

We show that not all DJE is associated with positive employee attitudes and behaviors, a significant extension to the bulk of the literature on DJE, which pointed to the benefits of developmental challenge. In addition, our results reveal that individual needs play a vital role in determining the outcomes of DJE. The latter findings extend papers that related DJE with both negative and positive affective outcomes, but did not specify the factors that led to each type of outcome (Courtright et al., 2014; Dong et al., 2014).

While DeRue and Wellman (2009) found that DJE had diminishing returns in leadership skills acquisition, they did not identify the inflection point. We show that the inflection point is at employees’ needs of DJE. Excess supplies of DJE are just as harmful as inadequate ones. Nevertheless, our results also reveal that the relationship among needs-supplies fit, AOC, and voluntary turnover is even more complex: First, fit at higher levels of needs is associated with better attitudinal and behavioral outcomes. Second, different individuals react differently to need fulfillment, making career identity salience fundamental for designing job-based development.

Counter to Hypothesis 3b, we find that for those high on CIS, oversupply of DJE is just as damaging as undersupply. While DJE foster promotability (De Pater et al., 2009), they also undermine advancement potential as unpleasant feelings arise (Dong et al., 2014), as worries over performance failures hinder skill acquisition (DeRue & Wellman, 2009), and as emotional exhaustion leads to laissez-faire leadership (Courtright et al., 2014). Jobs with excess supplies may therefore be perceived as more likely to lead to failure, a bigger concern for those high on CIS. Courtright and colleagues (2014, p. 684) show that when jobs are overly challenging, employees “retaliate” against the organization with laissez-faire leadership. Similarly, individuals will retaliate excess supplies with decreased AOC, and those high on CIS are more likely to do so. Overall, these results move the literature on DJE to new directions, because they show that there is no one optimal amount of DJE; the outcomes associated with a certain amount of DJE differ by individual.

Practical Implications

Our findings highlight the importance of individualized treatment to employees: Employers should carefully understand employee needs before offering challenging work experiences. They may find it valuable to assess job applicants’ needs in the selection process or to periodically evaluate personal needs for DJE as well as the fulfillment of these needs. Employers should also identify employees with high career identity salience during the selection process and in performance evaluation.

While excess and deficient supplies of DJE are equally harmful, descriptive statistics show that the latter is four times as common as the former. Employers should be especially wary of lowering employees’ AOC and inducing turnover by not meeting their needs for DJE.

We find that most contemporary jobs have high levels of DJE, irrespective of their hierarchical level, and the differences across levels are not large. Nonmanagerial employees need challenge just as much as managers and senior managers do. The relationships among DJE, AOC, and turnover in the nonmanagerial sample are the same as those in the whole sample. These results reflect the

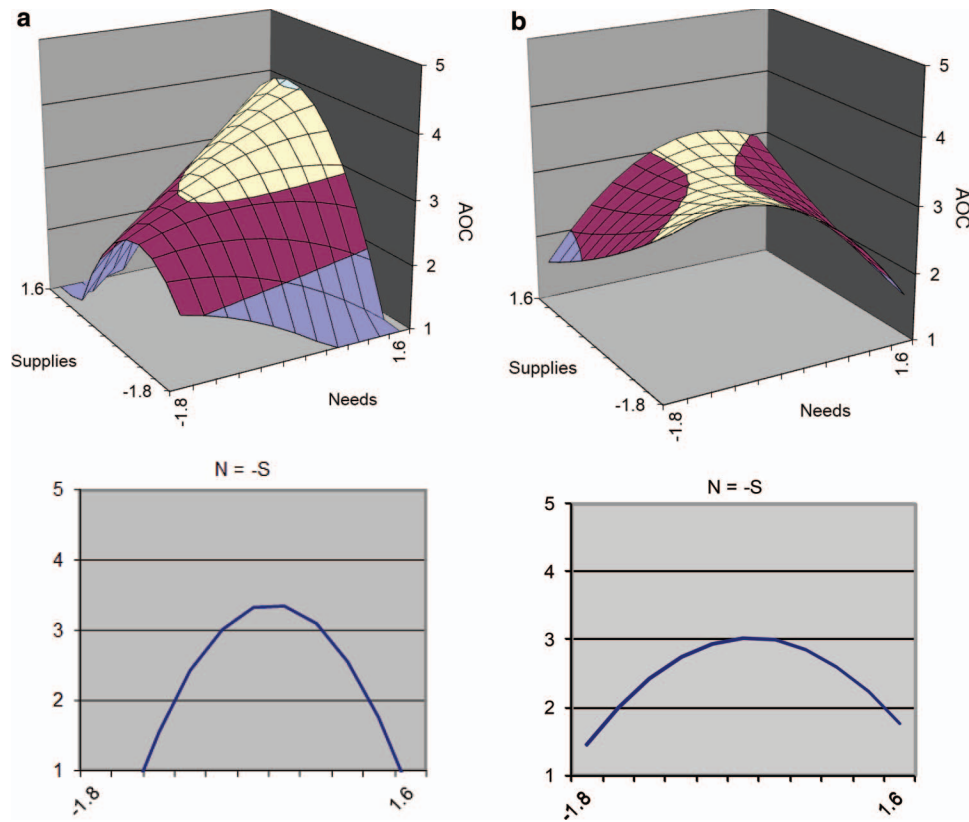


Figure 3. (a) The relationship between N-S fit of DJE and AOC at high career identity salience (high = 1 *SD* above the mean), and plotted shape along the $N = -S$ line. (b) The relationship between N-S fit of DJE and AOC at low career identity salience (low = 1 *SD* below the mean), and plotted shape along the $N = -S$ line. See the online article for the color version of this figure.

uncertainty and complexity of most jobs in the modern workplace (Bennett, 2014; Livingston, 2014) and imply that organizations should attend to how all employees cope with DJE. The findings also highlight the high ambitions of most contemporary employees and suggest that the design and implementation of DJE should extend to nonmanagerial employees as well.

Limitations and Future Research Directions

Although we took care to separate the measurement of our variables across time, the research design may still lead to ambiguous conclusions regarding causality. For instance, individuals with higher AOC could, as a consequence of their commitment,

perceive greater N-S fit. Alternatively, third variables not measured in this study (e.g., LMX) could simultaneously increase AOC and employee motivation to craft the environment to best match needs for DJE. Future research may consider a field experiment or examine changes in DJE and AOC longitudinally. Furthermore, we coded voluntary departures based on the records we received from the dataset companies, so we cannot provide information on the reliability and validity of our voluntary turnover measure.

Although we provide reasons why a misfit on DJE is associated with higher voluntary turnover (cognitive overload, performance anxiety, fatigue, etc.), we could not measure these variables. At one organization ($N = 88$), we administered the Positive and

Table 3

Tests of Response Surfaces Along Line of Misfit ($N = -S$) at High and Low^a Levels of Career Identity Salience^b

Dependent variable	Level of career identity salience (CIS)	Slope of surface		Curvature of surface	
		q_{slope}	95% CI	$q_{\text{curvature}}$	95% CI
Affective Organizational Commitment (AOC)	Low	.04 (.20)	[−.34, .42]	−.64 (.66)	[−1.94, .65]
	High	.19 (.19)	[−.17, .56]	−1.06* (.64)	[−2.11, −.01]

Note. Standard errors are reported in parentheses.

^a High-level means 1 *SD* above the mean and low-level means 1 *SD* below the mean of CIS. ^b Unstandardized coefficients are reported.

* $p < .05$, two tailed.

Table 4
Results From Tests of Direct and Indirect Effects of N-S Fit of Developmental Job Experiences
on Work Attitude and Career Decision^a

Variable	AOC	Voluntary turnover ^b
Coefficient of the block variable, direct effect of needs–supplies fit (<i>c</i> path)		–1.38 (1.35)
Coefficient of the block variable (<i>a</i> path)	1.00*** (.20)	
Coefficient of AOC, controlling for the block variable (<i>b</i> path)		–.72* (.30)
Indirect effect of needs–supplies fit via AOC (<i>a</i> × <i>b</i>)		–.72* (.34)
95% bootstrapped confidence interval for the indirect effect (<i>a</i> × <i>b</i>)		[–1.39, –.04]

Note. Standard errors (*SE*) are reported in parentheses.

^a Unstandardized coefficients are reported. ^b As voluntary turnover is a dichotomous binary outcome, logistic regression was used.

p* < .05. **p* < .001, two tailed.

Negative Affect Schedule scale, which consists of two 10-item mood scales that measure positive and negative affect, three weeks after information on DJE was collected (Watson, Clark, & Tellegen, 1988). We find that N-S fit is related to positive affect (block variable $\beta = .74$, $SE = .45$, $p < .10$) and is negatively associated with negative affect, such as feeling distressed, upset, or nervous (block variable $\beta = -1.08$, $SE = .44$, $p < .05$). Excess supplies of DJE are associated with negative affect (block variable $\beta = 1.02$, $SE = .49$, $p < .05$). These analyses (shown in Appendix 6 of the online supplemental materials) provide some evidence that fit may be linked to AOC through negative and positive moods.

We showed that compared to N-S fit, excess supplies of DJE are negatively related to AOC, and positively to voluntary and dysfunctional turnover. Nevertheless, companies may still benefit from this turnover, because they end up with employees who better fit the work environment. Departing employees may benefit, too, because they may find better fitting or more satisfying work at a new employer. While we do not have data to test these scenarios, future research could compare the benefits and downside of excess supplies of DJE.

Our findings open the way for more empirical studies on this topic: studies that sample all hierarchical levels, examine other organizationally relevant outcomes such as intrarole (e.g., absenteeism, creativity) and extrarole behaviors (e.g., organizational citizenship); that examine the effect of time; and that move beyond the individual level and explore the link between team characteristics and team members' attitudes to DJE, or the link between DJE and team-level outcomes such as team climate or team effectiveness.

References

- Aryee, S., & Chu, C. W. L. (2012). Antecedents and outcomes of challenging job experiences: A social cognitive perspective. *Human Performance*, 25, 215–234. <http://dx.doi.org/10.1080/08959285.2012.684082>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529. <http://dx.doi.org/10.1037/0033-2909.117.3.497>
- Bell, B. S., Tannenbaum, S. I., Ford, J. K., Noe, R. A., & Kraiger, K. (2017). 100 years of training and development research: What we know and where we should go. *Journal of Applied Psychology*, 102, 305–323. <http://dx.doi.org/10.1037/apl0000142>
- Bennett, N. (2014). What VUCA really means for you. *Harvard Business Review*, 92, 27–29.
- Bingham, J. B., Boswell, W. R., & Boudreau, J. W. (2005). Job demands and job search among high-level managers in the United States and Europe. *Group & Organization Management*, 30, 653–681. <http://dx.doi.org/10.1177/1059601104269527>
- Blau, P. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (pp. 398–444). Boston, MA: Allyn & Bacon.
- Brutus, S., Ruderman, M. N., Ohlott, P. J., & McCauley, C. D. (2000). Developing from job experiences: The role of organization-based self-esteem. *Human Resource Development Quarterly*, 11, 367–380. [http://dx.doi.org/10.1002/1532-1096\(200024\)11:4<367::AID-HRDQ4>3.0.CO;2-6](http://dx.doi.org/10.1002/1532-1096(200024)11:4<367::AID-HRDQ4>3.0.CO;2-6)
- Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, 87, 875–884. <http://dx.doi.org/10.1037/0021-9010.87.5.875>
- Cable, D. M., & Edwards, J. R. (2004). Complementary and supplementary fit: A theoretical and empirical integration. *Journal of Applied Psychology*, 89, 822–834. <http://dx.doi.org/10.1037/0021-9010.89.5.822>
- Cable, D. M., Gino, F., & Staats, B. R. (2013). Breaking them in or eliciting their best? Reframing socialization around newcomers' authentic self-expression. *Administrative Science Quarterly*, 58, 1–36. <http://dx.doi.org/10.1177/0001839213477098>
- Caplan, R. D. (1983). Person-environment fit: Past, present, and future. In C. L. Cooper (Ed.), *Stress research* (pp. 35–78). New York, NY: Wiley.
- Carette, B., Anseel, F., & Lievens, F. (2013). Does career timing of challenging job assignments influence the relationship with in-role job performance? *Journal of Vocational Behavior*, 83, 61–67. <http://dx.doi.org/10.1016/j.jvb.2013.03.001>
- Chen, Z. X., & Francesco, A. M. (2003). The relationship between the three components of commitment and employee performance in China. *Journal of Vocational Behavior*, 62, 490–510. [http://dx.doi.org/10.1016/S0001-8791\(02\)00064-7](http://dx.doi.org/10.1016/S0001-8791(02)00064-7)
- CIPD. (2016). *Learning, development and skills. Survey report of the Chartered Institute of Personnel and Development (CIPD) on Employee outlook: Employee views on working life*. London, England: Author. Retrieved from <https://www.cipd.co.uk/search?q=employee+outlook+reports>
- Cole, M. S., Carter, M. Z., & Zhang, Z. (2013). Leader–team congruence in power distance values and team effectiveness: The mediating role of procedural justice climate. *Journal of Applied Psychology*, 98, 962–973. <http://dx.doi.org/10.1037/a0034269>
- Courtright, S. H., Colbert, A. E., & Choi, D. (2014). Fired up or burned out? How developmental challenge differentially impacts leader behavior.

- ior. *Journal of Applied Psychology*, 99, 681–696. <http://dx.doi.org/10.1037/a0035790>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31, 874–900. <http://dx.doi.org/10.1177/0149206305279602>
- Dalton, D. R., Krackhardt, D. M., & Porter, L. W. (1981). Functional turnover: An empirical assessment. *Journal of Applied Psychology*, 66, 716–721. <http://dx.doi.org/10.1037/0021-9010.66.6.716>
- De Pater, I. E., Van Vianen, A. E. M., Bechtoldt, M. N., & Klehe, U. C. (2009). Employees' challenging job experiences and supervisors' evaluations of promotability. *Personnel Psychology*, 62, 297–325. <http://dx.doi.org/10.1111/j.1744-6570.2009.01139.x>
- DeRue, D. S., & Wellman, N. (2009). Developing leaders via experience: The role of developmental challenge, learning orientation, and feedback availability. *Journal of Applied Psychology*, 94, 859–875. <http://dx.doi.org/10.1037/a0015317>
- Dong, Y., Seo, M.-G., & Bartol, K. (2014). No pain, no gain: An affect-based model of developmental job experience and the buffering effects of emotional intelligence. *Academy of Management Journal*, 57, 1056–1077. <http://dx.doi.org/10.5465/amj.2011.0687>
- Dragoni, L., Tesluk, P. E., Russell, J. E. A., & Oh, I. S. (2009). Understanding managerial development: Integrating developmental assignments, learning orientation, and access to developmental opportunities in predicting managerial competencies. *Academy of Management Journal*, 52, 731–743. <http://dx.doi.org/10.5465/amj.2009.43669936>
- Edwards, J. R. (2008). Person–environment fit in organizations: An assessment of theoretical progress. *The Academy of Management Annals*, 2, 167–230. <http://dx.doi.org/10.5465/19416520802211503>
- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology*, 94, 654–677. <http://dx.doi.org/10.1037/a0014891>
- Edwards, J. R., Cable, D. M., Williamson, I. O., Lambert, L. S., & Shipp, A. J. (2006). The phenomenology of fit: Linking the person and environment to the subjective experience of person–environment fit. *Journal of Applied Psychology*, 91, 802–827. <http://dx.doi.org/10.1037/0021-9010.91.4.802>
- Edwards, J. R., Caplan, R. D., & Harrison, R. V. (1998). *Person–environment fit theory: Conceptual foundations, empirical evidence, and directions for future research*. New York, NY: Oxford University Press.
- Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, 36, 1577–1613.
- Edwards, J. R., & Rothbard, N. P. (1999). Work and family stress and well-being: An examination of person–environment fit in the work and family domains. *Organizational Behavior and Human Decision Processes*, 77, 85–129. <http://dx.doi.org/10.1006/obhd.1998.2813>
- Edwards, J. R., & Van Harrison, R. (1993). Job demands and worker health: Three-dimensional reexamination of the relationship between person–environment fit and strain. *Journal of Applied Psychology*, 78, 628–648. <http://dx.doi.org/10.1037/0021-9010.78.4.628>
- Fox, J. (1991). *Regression diagnostics*. Newbury Park, CA: Sage. <http://dx.doi.org/10.4135/9781412985604>
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161–178. <http://dx.doi.org/10.2307/2092623>
- Greer, T. W., & Egan, T. M. (2012). Inspecting the hierarchy of life roles: A systematic review of role salience literature. *Human Resource Development Review*, 11, 463–499. <http://dx.doi.org/10.1177/1534484312445322>
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50, 327–347. <http://dx.doi.org/10.5465/amj.2007.24634438>
- Hamori, M., Koyuncu, B., Cao, J., & Graf, T. (2015). What high-potential young managers want. *MIT Sloan Management Review*, 57, 61–68.
- Harrison, R. V. (1978). *Person–environment fit and job stress*. New York, NY: Wiley.
- Hom, P. W., Tsui, A. S., Wu, J. B., Lee, T. W., Zhang, A. Y., Fu, P. P., & Li, L. (2009). Explaining employment relationships with social exchange and job embeddedness. *Journal of Applied Psychology*, 94, 277–297. <http://dx.doi.org/10.1037/a0013453>
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63, 597–606. <http://dx.doi.org/10.1086/222355>
- Karasek, R. A., & Thorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. New York, NY: Basic Books.
- Kristof, A. L. (1996). Person–organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49, 1–49. <http://dx.doi.org/10.1111/j.1744-6570.1996.tb01790.x>
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person–job, person–organization, person–group, and person–supervisor fit. *Personnel Psychology*, 58, 281–342. <http://dx.doi.org/10.1111/j.1744-6570.2005.00672.x>
- Lam, W., Lee, C., Taylor, M. S., & Zhao, H. H. (2018). Does proactive personality matter in leadership transitions? Effects of proactive personality on new leader identification and responses to new leaders and their change agendas. *Academy of Management Journal*, 61, 245–263. <http://dx.doi.org/10.5465/amj.2014.0503>
- Lambert, L. S., Edwards, J. R., & Cable, D. M. (2003). Breach and fulfillment of the psychological contract: A comparison of traditional and expanded views. *Personnel Psychology*, 56, 895–934. <http://dx.doi.org/10.1111/j.1744-6570.2003.tb00244.x>
- Lambert, L. S., Tepper, B. J., Carr, J. C., Holt, D. T., & Barelka, A. J. (2012). Forgotten but not gone: An examination of fit between leader consideration and initiating structure needed and received. *Journal of Applied Psychology*, 97, 913–930. <http://dx.doi.org/10.1037/a0028970>
- Lepine, J. A., Podsakoff, N. P., & Lepine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48, 764–775. <http://dx.doi.org/10.5465/amj.2005.18803921>
- Livingston, R. E. (2014). The future of organization development in a VUCA world. In B. B. Jones & M. Brazzel (Eds.), *The NTL handbook of organization development and change* (pp. 659–672). San Francisco, CA: Wiley. <http://dx.doi.org/10.1002/9781118836170.ch34>
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1350). Chicago, IL: Rand McNally.
- Major, V. S., Klein, K. J., & Ehrhart, M. G. (2002). Work time, work interference with family, and psychological distress. *Journal of Applied Psychology*, 87, 427–436. <http://dx.doi.org/10.1037/0021-9010.87.3.427>
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108, 171–194. <http://dx.doi.org/10.1037/0033-2909.108.2.171>
- Matta, F., Scott, B., Koopman, J., & Conlon, D. (2015). Does seeing “eye to eye” affect work engagement and organizational citizenship behavior? A role theory perspective on LMX agreement. *Academy of Management Journal*, 58, 1686–1708. <http://dx.doi.org/10.5465/amj.2014.0106>
- McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, 71, 247–264. <http://dx.doi.org/10.1016/j.jvb.2007.06.003>
- McCall, M. W. (2010). Recasting leadership development. *Industrial and Organizational Psychology*, 3, 3–19. <http://dx.doi.org/10.1111/j.1754-9434.2009.01189.x>

- McCauley, C. D., Ruderman, M. N., Ohlott, P. J., & Morrow, J. E. (1994). Assessing the developmental components of managerial jobs. *Journal of Applied Psychology*, 79, 544–560. <http://dx.doi.org/10.1037/0021-9010.79.4.544>
- Meyer, J. P., & Allen, N. J. (1988). Links between work experiences and organizational commitment during the first year of employment: A longitudinal analysis. *Journal of Occupational Psychology*, 61, 195–209. <http://dx.doi.org/10.1111/j.2044-8325.1988.tb00284.x>
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnitsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20–52. <http://dx.doi.org/10.1006/jvbe.2001.1842>
- Porter, L. W. (1962). Job attitudes in management: I. Perceived deficiencies in need fulfillment as a function of job level. *Journal of Applied Psychology*, 46, 375–384. <http://dx.doi.org/10.1037/h0047808>
- Preenen, P. T. Y., De Pater, I. E., Van Vianen, A. E. M., & Keijzer, L. (2011). Managing voluntary turnover through challenging assignments. *Group & Organization Management*, 36, 308–344. <http://dx.doi.org/10.1177/1059601111402067>
- Preenen, P. T. Y., Van Vianen, A. E. M., & De Pater, I. E. (2014). Challenging assignments and activating mood: The influence of goal orientation. *Journal of Applied Social Psychology*, 44, 650–659. <http://dx.doi.org/10.1111/jasp.12256>
- Quinn, R. P., & Shepard, L. G. (1974). *The 1972–1973 Quality of Employment Survey*. Ann Arbor, MI: Institute for Social Research, University of Michigan.
- Raub, S., & Robert, C. (2010). Differential effects of empowering leadership on in-role and extra-role employee behaviors: Exploring the role of psychological empowerment and power values. *Human Relations*, 63, 1743–1770. <http://dx.doi.org/10.1177/0018726710365092>
- Ruderman, M. N., McCauley, C. D., & Ohlott, P. J. (1999). *Job challenge profile: Learning from work experience self instrument*. San Francisco, CA: Jossey-Bass/Pfeiffer.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78. <http://dx.doi.org/10.1037/0003-066X.55.1.68>
- Seibert, S. E., Sargent, L. D., Kraimer, M. L., & Kiazad, K. (2017). Linking developmental experiences to leader effectiveness and promotability: The mediating role of leadership self-efficacy and mentor network. *Personnel Psychology*, 70, 357–397. <http://dx.doi.org/10.1111/peps.12145>
- Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, 15, 33–53. <http://dx.doi.org/10.1016/j.leaqua.2003.12.004>
- Shalley, C. E., Gilson, L. L., & Blum, T. C. (2009). Interactive effects of growth need strength, work context, and job complexity on self-reported creative performance. *Academy of Management Journal*, 52, 489–505. <http://dx.doi.org/10.5465/amj.2009.41330806>
- Snijders, T., & Bosker, R. (1999). *Multilevel analysis: An introduction to basic and applied multilevel analysis*. London, England: Sage.
- Strauss, K., Griffin, M. A., & Parker, S. K. (2012). Future work selves: How salient hoped-for identities motivate proactive career behaviors. *Journal of Applied Psychology*, 97, 580–598. <http://dx.doi.org/10.1037/a0026423>
- Tak, J. (2011). Relationships between various person–environment fit types and employee withdrawal behavior: A longitudinal study. *Journal of Vocational Behavior*, 78, 315–320. <http://dx.doi.org/10.1016/j.jvb.2010.11.006>
- Trevor, C. O. (2001). Interactions among actual ease-of-movement determinants and job satisfaction in the prediction of voluntary turnover. *Academy of Management Journal*, 44, 621–638.
- Turnley, W. C., Bolino, M. C., Lester, S. W., & Bloodgood, J. M. (2003). The impact of psychological contract fulfillment on the performance of in-role and organizational citizenship behaviors. *Journal of Management*, 29, 187–206. <http://dx.doi.org/10.1177/014920630302900204>
- van Gelderen, M., van de Sluis, L., & Jansen, P. (2005). Learning opportunities and learning behaviours of small business starters: Relations with goal achievement, skill development and satisfaction. *Small Business Economics*, 25, 97–108. <http://dx.doi.org/10.1007/s11187-005-4260-1>
- Van Yperen, N. W., & Janssen, O. (2002). Fatigued and dissatisfied or fatigued but satisfied? Goal orientations and responses to high job demands. *Academy of Management Journal*, 45, 1161–1171. <http://dx.doi.org/10.5465/3069431>
- Vogel, R. M., Rodell, J. B., & Lynch, J. W. (2016). Engaged and productive misfits: How job crafting and leisure activity mitigate the negative effects of value incongruence. *Academy of Management Journal*, 59, 1561–1584. <http://dx.doi.org/10.5465/amj.2014.0850>
- Warr, P. (1987). *Work, unemployment, and mental health*. New York, NY: Oxford University Press.
- Warr, P. (1994). A conceptual framework for the study of work and mental health. *Work & Stress*, 8, 84–97. <http://dx.doi.org/10.1080/02678379408259982>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070. <http://dx.doi.org/10.1037/0022-3514.54.6.1063>
- Weng, Q. X., McElroy, J. C., Morrow, P. C., & Liu, R. Z. (2010). The relationship between career growth and organizational commitment. *Journal of Vocational Behavior*, 77, 391–400. <http://dx.doi.org/10.1016/j.jvb.2010.05.003>
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297–333. <http://dx.doi.org/10.1037/h0040934>
- Wu, J. B., Hom, P. W., Tetrick, L. E., Shore, L. M., Jia, L., Li, C., & Song, J. (2006). The norm of reciprocity: Scale development and validation in the Chinese context. *Management and Organization Review*, 2, 377–402. <http://dx.doi.org/10.1111/j.1740-8784.2006.00047.x>
- Zhang, Z., Wang, M., & Shi, J. (2012). Leader-follower congruence in proactive personality and work outcomes: The mediating role of leader-member exchange. *Academy of Management Journal*, 55, 111–130. <http://dx.doi.org/10.5465/amj.2009.0865>

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