

Testing a Multidimensional Theory of Person-Environment Fit

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This paper explores the multidimensionality of employees' fit. In particular, the aim of the present paper is to test the long-term temporal stage of the multidimensional model of Person-Environment (PE) fit advanced by Jansen and Kristof-Brown (2006) empirically.

The notion of multidimensional fit has emerged as a reaction to the difficulty that researchers have had pinning down the concept of fit. Whereas most people understand what being a "misfit" is like, e.g., not getting on with people, feeling like an outsider, a desire to leave the organization (Schneider, 1987) or looking for bolt holes in which to shelter from the storm (Van Vianen and Stoelhorst, 2007), they do not naturally have an understanding of what being a "fit" is (Billsberry *et al.*, 2005). Researchers have had similar difficulties conceptualizing fit despite efforts to provide a definition of the term (Cable and Edwards, 2004; Harrison, 2007; Kristof, 1996; Ostroff and Schulte, 2007). This has resulted in considerable variation in the way that researchers conceptualize fit in their studies (Harrison, 2007). Consequently, "fit" is regularly termed an "elusive" concept and one that defies definition (Edwards and Shipp, 2007; Harrison, 2007; Jansen and Kristof-Brown, 2006; Judge and Ferris, 1992; Kristof, 1996; Rynes and Gerhart, 1990).

Deconstructed, Undeconstructed, and Reconstructed Fit

Management scholars have been interested in the interaction of workers and the environments they inhabit for over 100 years (Parsons, 1909; Schneider, 1987). This domain, which is called person-environment (PE) or organizational fit, has witnessed a large number of empirical studies and experiments, but researchers have struggled

to define the “elusive criterion of fit” (Jansen and Kristof-Brown, 2006; Judge and Ferris, 1992). The problem is that both people and the environments they inhabit are multidimensional. These dimensions include “internal” factors such as personality, values, attitudes, skills, emotions, and goals, and “external” factors such as job requirements, expected behavior, organizational culture, pay structures, and collegiality. Researchers have been faced with the seemingly impossible problem of capturing all of the internal and external dimensions and mapping how they fit together to influence behavior. In short, there are many forms of fit (Edwards and Shipp, 2007), researchers do not know if all forms of fit have been identified (Billsberry *et al.*, 2005), and it is not known how they all fit together (Jansen and Kristof-Brown, 2006).

As the task of identifying, capturing, and combining all of the various factors influencing fit is so massive, most studies have theorized a link between singular aspects of the person and the environment. Chatman (1991), for example, focused on values and showed that the congruence of individual and organizational values predicts job satisfaction, organizational commitment, and tenure. Turban and Keon (1993) found that people with a high need to achieve were more attracted to organizations that offered a merit-based reward structure (i.e., those that rewarded performance over seniority) than people with a low need to achieve. They also showed that people with low self-esteem were more attracted to decentralized organizational structures (and larger firms) than people with high self-esteem, thereby suggesting that people are attracted to organizations that mirror their personality. In addition to values and personality, other personal factors that have been explored include goals, interests, and attitudes.

But it is on the environmental side of the fit equation where most attention has been directed. For example, Caldwell and O'Reilly (1990) focused on Person-Job (PJ) fit and demonstrated that a fit can be identified between employees and the type of work and also with the skills they use. Other researchers considered the fit between people and their vocations (PV fit; Holland, 1985; Moos, 1987), their colleagues (variously called Person-Person, Person-People (PP), and Person-Individual fit; Graves and Powell, 1995), their work groups (PG; Adkins *et al.*, 1996; Barsade *et al.*, 2000; Becker, 1992; Hobman *et al.*, 2003), their organizations (PO; Chatman, 1991; O'Reilly *et al.*, 1991; Vancouver and Schmitt, 1991), and their supervisors (PS; Adkins *et al.*, 1994). In addition to variations in the way that the person and the environment parts of the fit equation have been deconstructed, there is also great variety in the constructs and behaviors that have been predicted in fit research (Kristof-Brown *et al.*, 2005). The most commonly operationalized are job satisfaction, tenure, staff turnover, organizational commitment, organizational citizenship behaviors, performance, and absenteeism (Kristof-Brown *et al.*, 2005).

These studies represent the mainstream of research into organizational fit. They are based on a theoretical deconstruction of the concept of “fit.” They involve the comparison of one aspect of the person with one aspect of the environment to predict a behavioral or psychological outcome. The legacy of these studies is a mass of findings involving many individual factors (personality, values, goals, etc.), even more environmental factors (jobs, organizations, vocations, etc.), and a myriad of dependent variables (job satisfaction, tenure, staff turnover, etc.). An additional factor that further deconstructs “fit” is variation in the way that “fit” is conceptualized and measured. Harrison (2007: 389) recorded “similarity, congruence, alignment, agreement, composition, compilation, configuration, matching, and interactionist” forms of conceptualization. Such is the bewildering array of definitions, methods, and findings that some scholars have begun to wonder what this thing called fit is. Drawing a retail analogy, Harrison (2007: 389)

stated, "I'm lost in the supermarket of fit research, and I haven't yet stepped inside!"

Two responses have emerged to resolve the definitional problems inherent in the deconstructed mainstream approach. The first of the responses is to reconstruct fit from the various components that have been theoretically separated out. This approach is collectively known as multidimensional fit. Three motivations drive such work. First, as mentioned earlier, one goal is to move the field back to people's overarching sense of fit (or misfit) by attempting to unite the various forms of fit. Second, by combining different dimensions of fit as predictor variables, researchers hope to find more predictive power. Third, various scholars (e.g., Jansen and Kristof-Brown, 2006; Sekiguchi, 2004, 2007) suggested that the different dimensions of fit play different roles and have different emphases at different points of the employment relationship. For example, Jansen and Kristof-Brown (2006) predicted that PJ and PP forms of fit will be evident during job search, while PO and PJ forms of fit will be prominent during socialization. Kristof-Brown *et al.* (2002) conducted an empirical study in which they showed that PO, PG, and PJ forms of fit simultaneously predicted work satisfaction. This study furthered understanding of how these forms of fit influence outcomes, but it shifted attention away from any overall, multidimensional model of fit (Law *et al.*, 1998).

The most ambitious contribution on multidimensional fit came from Jansen and Kristof-Brown (2006) who developed a model encompassing five different dimensions of fit (PV, PO, PG, PJ, and PP) and five stages of employment (Pre-recruitment, Recruitment/Job Search, Selection/Job Choice, Socialization, and Long-term Tenure). In brief, they predicted that the five forms of fit (PV, PO, PG, PJ, and PP) combine to comprise multidimensional PE fit. Their conjecture is that these different dimensions of PE fit have more or less salience at different points in someone's employment. Before thinking about joining an organization, PV is relevant. During job search, PJ and PP fit become important and PJ and PO come to the fore during selection. During socialization, PO and PJ are predicted to be the most salient and during long-term tenure, all five forms are relevant (this final phase of the cycle is the focus of this paper). During long-term tenure, the authors predicted that multidimensional PE fit will predict the individual-level outcomes of satisfaction, commitment, and withdrawal (see Figure I).

Jansen and Kristof's (2006) model has an integrative design in that it predicts how the various dimensions of fit combine with people's sense of fit. In effect, this model suggests that the multiple dimensions of fit are facets of a single overarching sense of fit. However, as noted earlier, the construct of fit is an elusive concept and as the authors point out, it is unclear how the various dimensions of fit combine, or whether they do combine, to produce an overarching sense of fit. Consequently, an alternative model readily offers itself based on Kristof-Brown *et al.*'s (2002) findings (see Figure II). In this model, there is no overarching sense of fit and instead multiple dimensions of fit remain separate as predictors of the outcomes. Rather than construing multidimensional fit as a reconstruction of various dimensions of fit, this model accepts the logic in the deconstructed approach to fit and assumes that the various dimensions of fit operate separately on behavioral and psychological outcomes.

The second response is to study "fit" as an undeconstructed construct. This undeconstructed form of fit is known as "perceived" fit (also known as "Gestalt fit") and it relates to a person's overall sense of fit to their employing organization. Perceived fit is usually captured via subjective methods, that is, research instruments that allow respondents to report a direct assessment of their compatibility (Kristof *et al.*, 2005). For example, a person might be asked to say how much they agree with a statement like, "My

Figure I
Jansen and Kristof-Brown's (2006) higher order multidimensional PE fit model
showing long-term tenure relationships

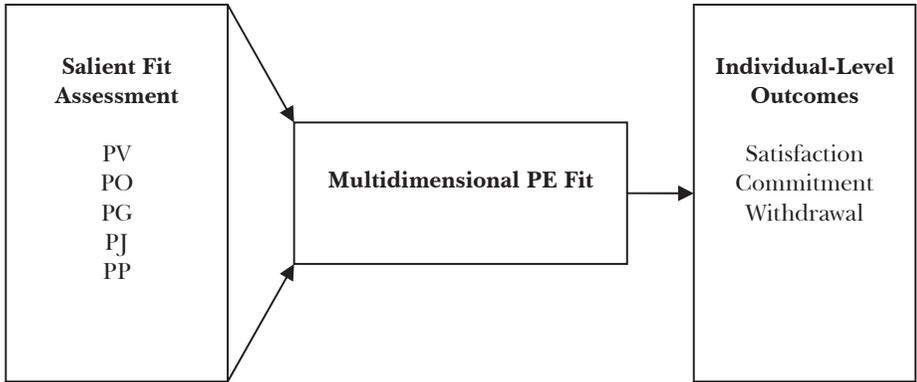
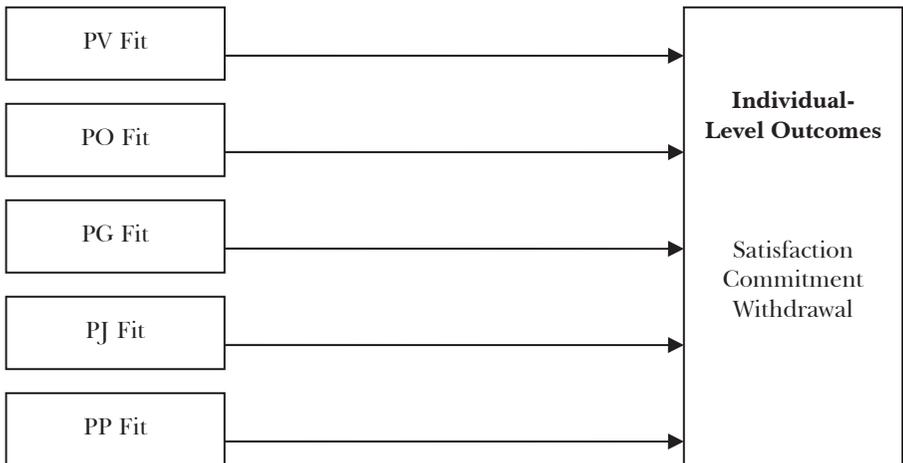


Figure II
An alternative model of long-term tenure multidimensional fit
assuming no overarching sense of fit



personal values match my organization's values and culture" (Cable and DeRue, 2002: 879). Although studies of perceived fit have been derided for their lack of theoretical rigor (e.g., Harrison, 2007), they have maintained a place in PE fit research. This is due

to their central role in the theory underpinning organizational fit, such as Schneider's (1987) ASA theory, which talks about employees behaving as a result of their overall sense of fit. For example, "people who do not fit an environment well will tend to leave it" (Schneider, 1987: 442). In addition, a major meta-analysis has shown that perceived fit is a much stronger correlate of behavioral and psychological outcomes than deconstructed forms of fit (Kristof-Brown *et al.*, 2005).

Researchers in the UK used cognitive mapping techniques to explore how the deconstructed dimensions of fit (e.g., PJ, PV, PG, and PP) relate to undeconstructed perceived fit. By asking people to talk about the things that influence their sense of fit, Billsberry *et al.* (2005) showed that perceived fit is much richer than previously expected. In total, the researchers (Billsberry *et al.*, 2005; Billsberry *et al.*, 2008; Talbot and Billsberry, 2007) found sixteen different dimensions of fit. In addition to the expected dimensions of fit described in the literature, people included work/life balance, extra-work factors, and aspects of the physical environment in their sense of fit. Although their exploratory qualitative methodology shows that undeconstructed fit largely comprises of the known discrete dimensions of fit, their method was unable to provide a definitive breakdown of perceived fit or show how the various deconstructed dimensions of fit coalesce.

The current paper tests both Jansen and Kristof-Brown's (2006) original model (Figure I) and the alternative one presented in Figure II. The purpose of this comparison is to provide insight into the nature of fit. Do people have an overarching sense of fit or are perceptions of fit closely linked to salient features of the organizational environment? Following Jansen and Kristof-Brown (2006), Structural Equation Modeling (SEM) techniques are used to perform the analysis. In addition, this study offers a quantitative follow-up to the qualitative studies of Billsberry and his colleagues (Billsberry *et al.*, 2005; Billsberry *et al.*, 2008; Talbot and Billsberry, 2007) with the aim of testing their construction of perceived fit.

METHOD

Design, Procedure, and Sample

Participants were recruited via Study Response, an organization based at Syracuse University, which offers researchers access to a database of people willing to complete online questionnaires in return for a small inducement. These respondents are primarily based in the United States, in a broad range of organizations and are thought to be a representative sample of company employees (Buchanan and Smith, 1999; Davis, 2007; Dennis and Winston, 2003; Judge *et al.*, 2006; Maurer *et al.*, 2007; Piccolo *et al.*, 2008; Piccolo and Colquitt, 2006). Maurer *et al.* (2007: 341) described the sample as "a diverse demographic composition," while Dennis and Winston (2003: 456) stated that the database contains "a cross section of the population in terms of age, education, and gender." Respondents in the current study were entered into a draw to win one of 100 \$50 Amazon vouchers. A hotlink to the survey instrument was embedded within email messages that were distributed to participants asking them to complete the online questionnaire. A reminder was sent out one week following the first invitation to participate. The data gathering period closed a week later.

Ten thousand working people primarily based in the U.S. were targeted for the current study. 2,593 of the targeted people completed the online questionnaire (26%).

2,289 were valid responses of which 1,875 remained once they were filtered to remove people who had been employed for less than a year at their current employer or who did not respond to the tenure question. 689 (36.7%) were men and 1,186 (63.3%) were women. Average organizational tenure for employees was seven years and average age was 31 to 35 years.

Measures

Person-Environment Fit. One of the problems preventing researchers from studying multidimensional fit is the difficulty constructing measures that capture all dimensions of fit. Traditionally these have been captured separately and have slightly varying formats. To avoid problems such as combining dissimilar methods, it was decided that a new instrument should be developed to capture multidimensional fit across its various forms. The starting point was the sixteen dimensions of fit in Billsberry *et al.* (2008). These sixteen different dimensions of fit emerged following two in-depth qualitative studies of employees' perceptions of fit. Billsberry *et al.* (2008) employed the causal mapping method outlined in Billsberry *et al.* (2005). In this approach, one-to-one interviews are conducted in which participants are asked to talk about their "sense of fit." To help them do this, they are presented with a large piece of paper with the word "Fit" placed in the center. They are then asked to embellish the piece of paper with factors that influence their sense of fit thereby creating a causal map of their fit. The benefits of this approach are that it helps the participants uncover causes that may have been unconsciously held, triggers new ideas through a process called "spreading activation" (Daniels *et al.*, 1995), allows participants to check that their description of their fit accords with their experience of the construct by visually scanning the map, and, crucially for an exploratory design, allows participants to describe their fit free from the researchers' preconceptions. In their first in-depth study, Billsberry *et al.* (2008) conducted these in-depth sessions with 63 members of a higher education establishment. Afterwards, their second study sought to validate their emerging definition of fit with further sessions with 38 people in six organizations in different sectors and geographical locations. After the maps were coded for the type of fit being described, fifteen different dimensions of fit were revealed (nature of work, skills and knowledge, behavior, colleagues, relationship, manager, physical working environment, terms and conditions of employment, opportunities for growth and development, opportunities for achievement, organizational behavior, organizational values, organizational mission, organizational reputation, and work/life balance). To be included in the typology, a type of fit had to appear on at least 20% of the maps.

For the current study, three experienced organizational fit researchers reviewed the fifteen dimensions of fit and selected nine of them that aligned with Jansen and Kristof-Brown's (2006) multidimensional model. In addition, vocation fit, which had been mentioned by fewer than ten of Billsberry *et al.*'s (2008) participants, was added so that all dimensions of fit in the model could be captured. Then, following the advice of Nagy (2002), each dimension of fit was constructed as a single item for use on a Likert-style questionnaire (e.g., "How do the organization's values fit with the values you think it should hold?"). Participants' answers were recorded on a 1 (Strongly Disagree) to 5 (Strongly Agree) Likert scale. PO fit was represented by four dimensions (Organizational Values (OV), Terms and Conditions of Employment (TCE), Opportunities for Growth and Development (OGD), and Physical Working Environment (PWE); Cronbach's alpha

= 0.81). PP fit was represented by two dimensions (Relationship (RE) and Individual Behavior (IB); Cronbach's alpha = 0.71). PJ fit was also represented by two dimensions (Skills and Knowledge (SK) and Nature of Work (NW); Cronbach's alpha = 0.70). PG fit and PV fit were both represented by one dimension each (Colleagues (CO) and Vocation (VOC)). This approach of using single-item measures follows the recommendations of Billsberry *et al.* (2005), Billsberry *et al.* (2008), and Talbot and Billsberry (2007), and has the benefit of capturing the essence of the construct which is particularly helpful when the precise construction of the construct is unknown (Nagy, 2002; cf. Churchill, 1979).

Organizational Commitment. Commitment was measured using four questions from Hult's (2005) organizational commitment measure which is originally derived from the "Porter scale" (Porter *et al.*, 1974). Participants were asked to report their responses on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert scale. An example of an item is "I am proud to be working for my organization." For purposes of the current study, the four questions have been averaged to produce an overall score for organizational commitment. The Cronbach's alpha reliability coefficient for the five items is 0.80.

Intention to Leave. In the present study, withdrawal has been represented by "intention to leave." Three items were used to measure intention to leave adapted from Hom *et al.* (1984). Respondents' answers were reported on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert scale. A sample item is "I intend to leave the organization in the next 12 months." The three items were averaged to produce one single overall measure of intention to leave. The Cronbach's alpha reliability coefficient for the three items is 0.83.

Job Satisfaction. Five items measuring facets of job satisfaction from Nagy (2002) were chosen for the current study. Respondents' answers were reported on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert scale. An example of an item is "My work compares well to the type of work I would like to do." Principal Components Analysis (PCA) was conducted using Varimax rotation to test the factor structure of the five different facets of job satisfaction. One component with an eigenvalue greater than 1.0 was generated with a variance of 56.18. Since the PCA indicates that the five items are all measuring a similar concept, they have been scored into one overall measure of job satisfaction. The Cronbach's alpha reliability coefficient for the five items is 0.80.

Analysis

The analysis in the current study follows the following procedure. Initially, preliminary analysis and a correlation table will be produced showing the relationships between all variables in the study. This will be followed by two Confirmatory Factor Analyses (CFA) to test the factor structure of the multidimensional PE fit model proposed by Jansen and Kristof-Brown (2006) and the alternative model. Structural Equation Modeling analysis will then test the predictive influence of the best fitting PE fit model upon the three outcome measures included in the present study (commitment, intention to leave, and job satisfaction).

RESULTS

Preliminary Analysis

For many years, researchers in organizational behavior have raised concerns about

common method variance biases (Williams *et al.*, 1989). It has been suggested that relationships between self-report measures can become exaggerated due to measurement method (Kline *et al.*, 2000). In order to test for the presence of method variance bias within the current study, a sequence of statistical approaches were undertaken. First, Harman's single-factor test was performed. This test is one of the most widely used approaches by researchers (Podsakoff and Organ, 1986; Podsakoff *et al.*, 1984). All variables in the study were entered into an exploratory factor analysis to examine the unrotated factor solution (Anderson and Batenen, 1997). No single factor emerged from the analysis indicating that there is no substantial amount of common method variance present in the current data. Confirmatory Factor Analysis using the single-factor technique was also performed as a more sophisticated test. This test also failed to produce a single factor from the analysis. Following this, a further test controlling for the effects of a single unmeasured latent method factor was conducted as recommended by Podsakoff *et al.* (2003). This test has been used in a number of studies by adding a first-order factor with all other measures (e.g., Carlson and Kacmar, 2000; Podsakoff *et al.*, 1990). Findings from the current study revealed that the variance explained by the method factor is low and correlations among constructs are similar with or without the method factor included, thus indicating that common method variance is not a serious bias.

Descriptive Statistics

Scale means and standard deviations for all measures used in the current study are shown in Table 1. All multidimensional fit scales and outcome measures correlate at the 0.01 significance level. All five fit measures correlated positively with organizational commitment and job satisfaction, indicating that greater levels of PE fit are associated with greater levels of commitment and job satisfaction. All five measures of PE fit are also significantly and negatively related to intention to leave, suggesting that greater levels of PE fit are associated with lower levels of intention to leave. Additional analyses of gender differences demonstrated no significant differences.

Confirmatory Factor Analysis

Confirmatory factor analysis was performed to test the multidimensional PE fit model put forward by Jansen and Kristof-Brown (2006) using data from the current study. Maximum likelihood estimation to the covariances using AMOS 17.0 was applied to conduct the current CFA (AMOS; Arbuckle and Wothke, 1999). The Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Normed Fit Index (NFI), and Root Mean Square Error of Approximation (RMSEA) were used to test model fit (Tabachnick and Fidell, 2006).

Model 1. This model is the most direct replication of Jansen and Kristof-Brown's (2006) model for temporal stage of long-term tenure possible with this data. Ten PE fit observed forms of fit are used to construct five independent latent factors (PO, PP, PJ, PG, and PV), which in turn predict a dependent latent variable reflecting the single overall unidimensional aspect of the PE fit model. The authors feel this model best represents the multidimensional theory of PE fit described by Jansen and Kristof-Brown (2006). The chi-square statistic produced a statistically significant value of 4244.90 ($df = 34$, $n = 1,875$, $p < 0.01$) and poor goodness-of-fit statistics (CFI = 0.47, GFI = 0.73, NFI = 0.47, and RMSEA = 0.24). Model 1 shows the ten factor loadings on the five

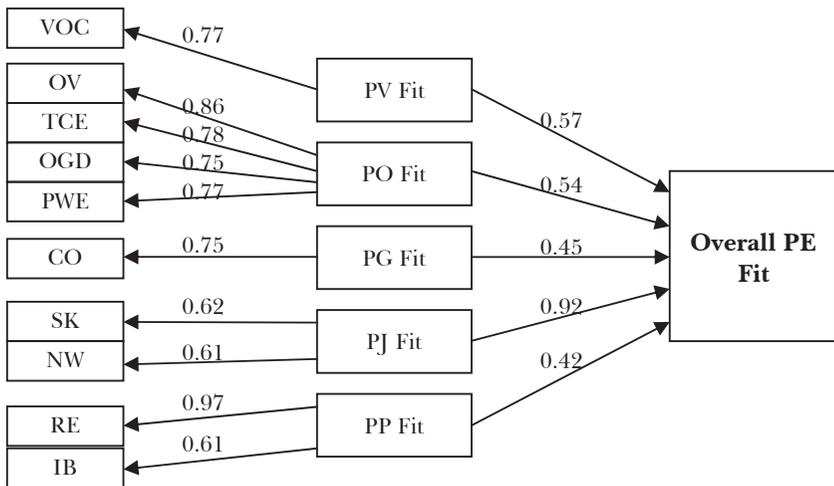
Table 1
Descriptive statistics and correlations for multidimensional person-environment fit, commitment, intention to leave and job satisfaction

Subscales	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.
1. Person-Organization Fit	3.70	0.88	(0.81)							
2. Person-People Fit	3.80	0.89	0.56	(0.71)						
3. Person-Job Fit	4.06	0.92	0.50	0.35	(0.70)					
4. Person-Group Fit	3.81	1.03	0.53	0.68	0.35	(-)				
5. Person-Vocation Fit	3.76	1.12	0.70	0.51	0.54	0.45	(-)			
6. Commitment	3.57	1.74	0.53	0.31	0.39	0.30	0.49	(0.80)		
7. Intention to Leave	4.10	1.66	-0.48	-0.31	-0.40	-0.30	-0.46	-0.52	(0.83)	
8. Job Satisfaction	5.13	1.41	0.62	0.41	0.70	0.41	0.62	0.60	-0.57	(0.80)

All correlations are significant at the 0.01 level.

multidimensional fit latent variables as well as the five loadings on the single overall dimension of PE fit. The rule of thumb is that with the CFI, GFI, and NFI indices, scores of 0.95 or greater are required to adjudge that the data fit the model well (0.90 is sometimes seen as acceptable). With RMSEA, a score of 0.05 is required for a well-fitting model. The fit indices for Model 1 are well below these thresholds indicating that this model *does not* fit the data in the current study (Hu and Bentler, 1999; Tabachnik and Fidell, 2006).

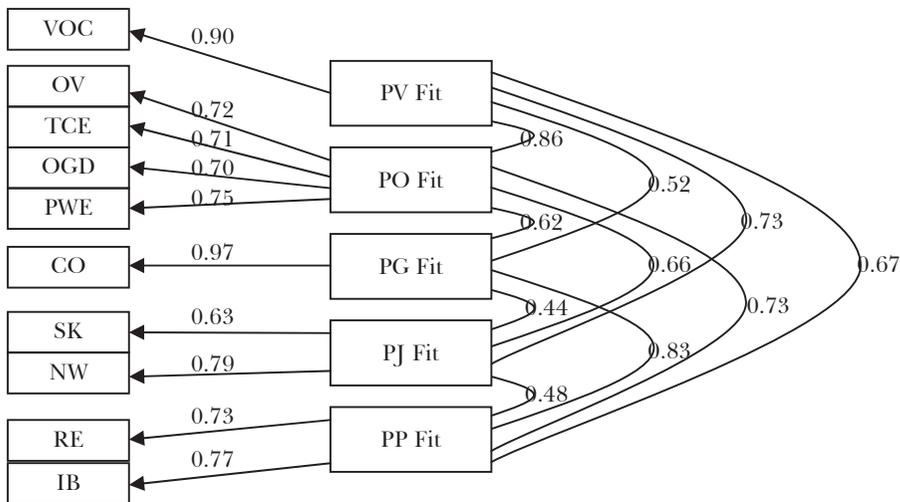
Model 1
Higher-order multidimensional model of person-environment fit



Notes: OV = Organizational Values, TCE = Terms and Conditions of Employment, OGD = Opportunities for Growth and Development, PWE = Physical Working Environment, RE = Relationship, IB = Individual Behavior, SK = Skills and Knowledge, NW = Nature of Work, CO = Colleagues, VOC = Vocation. The arrows in this diagram leading to the five forms of fit are in the opposite direction to the hypothesized models to reflect that in this study these are independent latent, rather than observed, variables. This way of displaying latent variables is in accordance with guidance from Law *et al.*, (1998).

Model 2. This model represents an alternative multidimensional model of PE fit without the overarching construct of multidimensional PE fit. Ten observed dimensions load on five multidimensional latent factors (PO, PP, PJ, PG, and PV). This model is similar to Model 1, however, without the higher second-order unidimensional facet of PE fit. Chi-square exhibited a statistically significant value of 177.9 (df = 27, n = 1,875, $p < 0.01$) and excellent goodness-of-fit statistics (CFI = 0.98, GFI = 0.98, NFI = 0.98, and RMSEA = 0.06). Model 2 shows the ten factor loadings on the five multidimensional PE fit latent variables as well as the correlations between the five latent factors. Results from this analysis indicate that Model 2 *does* fit the data in the current study (Hu and Bentler, 1999; Tabachnik and Fidell, 2006).

Model 2
Multidimensional model of person-environment fit



Notes: OV = Organizational Values, TCE = Terms and Conditions of Employment, OGD = Opportunities for Growth and Development, PWE = Physical Working Environment, RE = Relationship, IB = Individual Behavior, SK = Skills and Knowledge, NW = Nature of Work, CO = Colleagues, VOC = Vocation. The arrows in this diagram leading to the five forms of fit are in the opposite direction to the hypothesized models to reflect that in this study these are independent latent, rather than observed, variables. This way of displaying latent variables is in accordance with guidance from Law *et al.*, (1998).

Model Comparisons. The chi-square difference test allows the two alternative multidimensional PE fit models to be examined to test which model best fits the data. Comparing individual model chi-square values and associated number of degrees of freedom with the corresponding difference in chi-square and number of degrees of freedom of the competing model allows the test of difference between different models. Lower chi-square values are an indication of better fit.

The following comparison analysis is between Model 1 and Model 2. Chi-square difference test produced a significant finding (Model 1 vs. Model 2: χ^2 (df = 7) = 4067.00, $p > 0.001$). This indicates that Model 2 better fits the data than Model 1. This result is based on Model 2's superior chi-square value and goodness of fit indices.

Overall, the above comparison analysis shows that Model 2 best represents the multidimensional model of PE fit proposed by Jansen and Kristof-Brown (2006).

Outcome Model Analysis

The next stage of analysis is to examine best fitting Model 2's predictive influence on three outcomes. Three series of analysis were performed to test the effect of Model 2's multidimensional PE fit factor structure upon organizational commitment, intention to leave, and job satisfaction. This analysis is again based on Jansen and Kristof-Brown's (2006) proposed model.

Organizational Commitment. A model with structural path arrows emanating from the five multidimensional PE fit latent variables (Model 2) to single outcome measure organizational commitment was tested. A chi-square test resulted in a statistically significant value of 263.62 ($df = 33$, $n = 1,875$, $p < 0.01$) and very good fit index statistics ($CFI = 0.97$, $GFI = 0.98$, $NFI = 0.97$, and $RMSEA = 0.06$). Results from this analysis indicate that the best fitting multidimensional Model 2 with five paths predicting organizational commitment is a good fit to the data in the current study (Hu and Bentler, 1999; Tabachnik and Fidell, 2006). Table 2 shows the five individual regression weights for this model. It can be observed that PO, PP, and PJ all provide significant regression weights; however, PG and PV do not.

Table 2
Best fitting multidimensional model of person-environment
fit standardized regression weights for outcomes

Fit Dimensions	Organizational Commitment	Intention to Leave	Job Satisfaction
Person-Organization Fit	0.58 *	-0.41 *	0.24 *
Person-People Fit	-0.21 *	0.05	-0.03
Person-Job Fit	0.21 *	-0.29 *	0.50 *
Person-Group Fit	0.05	0.03	0.02
Person-Vocation Fit	0.11	-0.09	0.13

Note: * $p < 0.001$

Intention to Leave. A second outcome model with five structural paths from Model 2 predicting intention to leave was examined. A statistically significant chi-square value of 197.01 was produced ($df = 33$, $n = 1,875$, $p < 0.01$) with excellent goodness-of-fit statistics ($CFI = 0.98$, $GFI = 0.98$, $NFI = 0.98$, and $RMSEA = 0.05$), indicating that Model 2 with five paths predicting intention to leave fits the data well. The regression weights produced for this model are shown in Table 2. Two significant regression weights were found for PO and PJ fit, but not for PP, PG, and PV.

Job Satisfaction. The final outcome model explores best fitting multidimensional PE fit Model 2's predictive links to the outcome measure of job satisfaction. Chi-square and goodness-of-fit statistics for the current model exhibit a good fit to the data: $\chi^2 (33, n = 1,875) = 367.09$, $p < 0.01$, $CFI = 0.97$, $GFI = 0.97$, $NFI = 0.96$, and $RMSEA = 0.08$. Findings indicate that best fitting Model 2 with five paths predicting job satisfaction is a good fit to the data. Table 2 shows the five predictive regression weights for this model, which reveal that PO and PJ all offer significant regression weights, whereas PP, PG, and PV do not.

No possible chi-square difference test model comparison analysis could be statistically conducted between the three outcome models. Differences in models are due to changes in outcome variables, not in degrees of freedom. Instead, the RMSEA fit index (Browne and Cudeck, 1993) will be used to compare models. This has the ability to order non-nested models from a single data set from best fitting to worst fitting, with lower values indicating greater fit (Maruyama, 1998). It can be observed from Table 3 that best fitting multidimensional PE fit Model 2's best path prediction of an outcome is intention to leave, followed by organizational commitment and then job satisfaction. This is evident in the intention to leave outcome model's greater goodness-of-fit statistics and smaller chi-square and RMSEA values.

Table 3
Goodness-of-fit statistics between best fitting multidimensional model of person-environment fit and outcomes

Model	χ^2	df	CFI	GFI	NFI	RMSEA
Commitment	263.62	33	0.97	0.98	0.97	0.06
Intention to Leave	223.27	33	0.98	0.98	0.98	0.05
Job Satisfaction	367.09	33	0.97	0.97	0.96	0.08

Note: * p < 0.001

DISCUSSION

To summarize, the present study tested two different models that conceptualize how dimensions of fit combine to influence the individual-level outcomes of commitment, intention to leave, and satisfaction. This was done with employees who have spent at least one year in their current organizations and through perceived fit methodology. The data show that the model advanced by Jansen and Kristof-Brown (2006), which posits that five dimensions of fit combine to create a multidimensional fit construct, is not the best representation with the current sample. Instead, the data support an alternative model with the separate forms of fit influencing the outcomes of commitment, intention to leave, and job satisfaction directly.

These results suggest something quite important, namely, that employees who have been employed by their organizations for a year or more do not have an overarching sense of fit. Instead, employees make fit assessments to various aspects of the organizational environment such as their jobs, the people they work with, and the overall organization. These do not appear to coalesce into an overarching sense of fit before influencing commitment, intention to leave, and job satisfaction, and instead operate separately on the outcomes. This finding explains why people have difficulty responding to the question "How well do you fit?" (Billsberry *et al.*, 2005; Talbot and Billsberry, 2007) but can respond more quickly to questions about how they fit their jobs, colleagues or employers.

While these findings cast doubt on whether employees have an overarching sense of fit, it should be remembered that this study focused on people who had been employed for at least a year. This is just one part of Jansen and Kristof-Brown's (2006) model of multidimensional fit, which itself varies temporally and during different phases of the

employment relationship. Their hypothesized construct of multidimensional fit might occur at other times. One of these occasions might be during the pre-entry phases of recruitment/job search and selection/job choice. During both of these phases, the word "fit" readily enters people's language and appears important to their decision-making (Cable and Judge, 1996, 1997). Applicants ask themselves, "Will I fit in?" and organizational selectors ask, "Will this person fit in?" Hence, the concept of "fit" comes alive for them and the way that this phrase referring to an overarching sense of fit enters common parlance may be an indication that it is mirroring the appearance of a salient psychological construct.

Extending this thinking a bit further, it begs the question of why an overarching sense of fit might become non-salient for people who have worked in the organization for more than a year. One answer might be that during the first year or so of employment, new hires are seeking out information about the new organization to assess their fit (Chatman, 1991). Once they have determined that they fit, the construct becomes non-salient and instead they shift their focus to the more dynamic aspects of the organizational environment, such as their fit to their jobs and people. At this point, Schneider's analysis becomes relevant. He argues that "while people may be attracted to a place, they may make errors, and finding they do not fit, they will leave" (1987: 442). In effect, an overarching sense of fit becomes relevant during employment when it is in the negative, i.e., people leave when they become a misfit. As research has shown, people who label themselves "misfits" have a clear understanding of their misfit (Talbot and Billsberry, 2007). In such cases, Jansen and Kristof-Brown's (2006) model with its multidimensional PE fit construct may capture the underlying psychological processes. It would be particularly interesting to see empirical tests of the model during the pre-hire phases of employment and with misfits.

One unexpected finding of the study was the differing strength of the various dimensions of fit in predicting the outcomes. In particular, PP and PG fit had very low standardized regression weights and were almost negligible in the equations, especially with intention to leave and satisfaction. One explanation of these findings is that while PO and PJ dimensions of fit refer to an individual's assessment of fit to singular aspects of the organizational environment, there could be multiple people and groups that employees fit to. There are already studies in the literature that tease out person-supervisor (PS) fit and presumably people have other salient relationships as well (Kristof-Brown *et al.*, 2005), for example, the person they work next to, customers, staff, and other individuals that they encounter regularly. All of these may have salience, but the model collapses them all into one salient fit assessment. A stronger model might be forthcoming if respondents are allowed to enter all of their salient relationships (both to individuals and groups of individuals) into the model rather than simply overarching PP and PG fit assessment.

Limitations

The main limitation of the present study is its cross-sectional design. The next step is to replicate the findings with longitudinal data. In addition, Jansen and Kristof-Brown's (2006) model has temporal dimensions involving changing salience of fit assessments through different stages of the employment relationship. These require a longitudinal design to test fully. The cross-sectional design has also necessitated the use of latent variables for the dimensions of fit and overarching fit. Capturing these

three forms of fit (individual components, dimensions of fit, and overarching fit) in one study would have lead to insurmountable problems associated with common method error. A three-step longitudinal design would allow for the three different forms of fit to be captured separately avoiding this problem. Another limitation is that the study employed self-reported measures for all the concepts. As a result, some of the results might be influenced by social desirability effects. Self-reported measures have the benefit of being more economical than other types of data collection, but more importantly they are more proximal to people's behavior (Cable and Judge, 1996, 1997; Kristof, 1996), which also explains why this study opted to conceptualize fit in perceived terms rather than in an objective or actual manner. Nevertheless, it would be interesting to see the study replicated with objective fit data that allows for the separation of P and E sides of the fit equation; thus, the differing contributions of the two sides and the interaction between them can be explored.

CONCLUSION

Jansen and Kristof-Brown (2006: 206) conclude their paper with the following line, "As the research on PE fit accumulates, it becomes apparent that increasing our understanding of single dimensions of fit, in isolation of time and context, is no longer sufficient." The current study's data reaffirm this conclusion, but rather than supporting the existence of an overarching multidimensional construct of fit, it shows the single dimensions of fit operating simultaneously and directly on the outcomes of commitment, satisfaction, and intention to leave.

References

- Adkins, C. L., C. J. Russell, and J. D. Werbel. 1994. "Judgments of Fit in the Selection Process: The Role of Work Value Congruence." *Personnel Psychology* 47: 605-623.
- _____, E. C. Ravlin, and B. M. Meglino. 1996. "Value Congruence between Co-workers and Its Relationship to Work Outcomes." *Group and Organization Management* 21: 439-460.
- Anderson, L. M. and T. S. Bateman. 1997. "Cynicism in the Workplace: Some Causes and Effects." *Journal of Organizational Behavior* 18: 449-469.
- Arbuckle, J. L. and W. Wothke. 1999. *Amos 4.0 User's Guide*. Chicago: Smallwaters Corporation.
- Barsade, S. G., A. J. Ward, J. D. F. Turner, and J. A. Sonnenfeld. 2000. "To Your Heart's Content: A Model of Affective Diversity in Top Management Teams." *Administrative Science Quarterly* 45 (4): 802-837.
- Becker, T. E. 1992. "Foci and Bases of Commitment: Are They Distinctions Worth Making?" *Academy of Management Journal* 35: 232-244.
- Billsberry, J., V. Ambrosini, J. A. Edwards, J. Moss-Jones, P. J. G. Marsh, N. van Meurs, and D. A. L. Coldwell. 2008. "Three Empirical Studies Exploring Multidimensional Fit." Paper presented at the British Academy of Management annual conference, Harrogate (paper available upon request).
- _____, _____, J. Moss-Jones, and P. J. G. Marsh. 2005. "Some Suggestions for Mapping Organizational Members' Sense of Fit." *Journal of Business and Psychology*

- 19: 555-570.
- Browne, M. W. and R. Cudeck. 1993. "Alternative Ways of Assessing Model Fit." Chapter in *Testing Structural Equation Models*. Eds. K. A. Bollen and J. S. Long. Newbury Park, CA: Sage. pp. 136-162.
- Buchanan, T. and J. L. Smith. 1999. "Using the Internet for Psychological Research: Personality Testing on the World Wide Web." *British Journal of Psychology* 90: 125-144.
- Cable, D. M. and D. S. DeRue. 2002. "The Convergent and Discriminant Validity of Subjective Fit Perceptions." *Journal of Applied Psychology* 87: 875-884.
- _____ and J. R. Edwards. 2004. "Complementary and Supplementary Fit: A Theoretical and Empirical Integration." *Journal of Applied Psychology* 89: 822-834.
- _____ and T. A. Judge. 1996. "Person-Organization Fit, Job Choice Decisions, and Organizational Entry." *Organizational Behavior and Human Decision Processes* 67: 294-311.
- _____ and _____. 1997. "Interviewers' Perceptions of Person-Organization Fit and Organizational Selection Decisions." *Journal of Applied Psychology* 82: 546-561.
- Caldwell, D. F. and C. A. O'Reilly. 1990. "Measuring Person-Job Fit with a Profile-Comparison Process." *Journal of Applied Psychology* 75: 648-657.
- Carlson, D. S. and K. M. Kacmar. 2000. "Work Family-Conflict in the Organization: Do Life Role Values Make a Difference?" *Journal of Management* 26: 1031-1054.
- Chatman, J. A. 1991. "Matching People and Organizations: Selection and Socialization in Public Accounting Firms." *Administrative Science Quarterly* 36: 459-484.
- Churchill, G. A. 1979. "A Paradigm for Developing Better Measures for Marketing Constructs." *Journal of Marketing Research* 16: 64-73.
- Daniels, K., L. de Chernatony, and G. Johnson. 1995. "Validating a Method for Mapping Managers' Mental Models of Competitive Industry Structures." *Human Relations* 48: 975-991.
- Davis, J. J. 2007. "Consumers' Preferences for the Communication of Risk Information in Drug Advertising." *Health Affairs* 26: 863-870.
- Dennis, R. and B. E. Winston. 2003. "A Factor Analysis of Page and Wong's Servant Leadership Instrument." *Leadership and Organization Development Journal* 24: 455-459.
- Edwards, J. R. and A. J. Shipp. 2007. "The Relationship between Person-Environment Fit and Outcomes: An Integrative Theoretical Framework." Chapter in *Perspectives on Organizational Fit*. Eds. C. Ostroff and T. A. Judge. New York: Lawrence Erlbaum Associates. pp. 209-258.
- Graves, L. M. and G. N. Powell. 1995. "The Effect of Sex Similarity on Recruiters' Evaluations of Actual Applicants: A Test of the Similarity-Attraction Paradigm." *Personnel Psychology* 48: 85-98.
- Harrison, D. A. 2007. "Pitching Fits in Applied Psychological Research: Making Fit Methods Fit Theory." Chapter in *Perspectives on Organizational Fit*. Eds. C. Ostroff and T. A. Judge. New York: Lawrence Erlbaum Associates. pp. 389-416.
- Hobman, E. V., P. Bordia, and C. Gallois. 2003. "Consequences of Feeling Dissimilar from Others in a Work Team." *Journal of Business and Psychology* 17: 301-325.
- Holland, J. L. 1985. *Making Vocational Choices: A Theory of Careers* (2nd Ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Hom, P. W., R. W. Griffeth, and C. L. Sellaro. 1984. "The Validity of Mobley's (1977) Model of Employee Turnover." *Organizational Behavior and Human Performance* 34:

141-174.

- Hu, L. and P. M. Bentler 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives." *Structural Equation Modeling* 6: 1-55.
- Hult, C. 2005. "Organizational Commitment and Person-Environment Fit in Six Western Countries." *Organization Studies* 26: 249-270.
- Jansen, K. J. and A. Kristof-Brown. 2006. "Toward a Multidimensional Theory of Person-Environment Fit." *Journal of Managerial Issues* 18: 193-212.
- Judge, T. A. and G. R. Ferris. 1992. "The Elusive Criterion of Fit in Human Resources Staffing Decisions." *Human Resources Planning* 15: 47-67.
- Judge, T. A., R. Ilies, and B. A. Scott. 2006. "Work-Family Conflict and Emotions: Effects at Work and at Home." *Personnel Psychology* 59: 779-814.
- Kline, T. J. B., L. M. Sulsky, and S. D. Rever-Moriyama. 2000. "Common Method Variance and Specification Errors: A Practical Approach to Detection." *The Journal of Psychology* 134: 401-421.
- Kristof, A. L. 1996. "Person-Organization Fit: An Integrative Review of Its Conceptualizations, Measurement, and Implications." *Personnel Psychology* 49: 1-49.
- Kristof-Brown, A., K. J. Jansen, and A. E. Colbert. 2002. "A Policy-Capturing Study of the Simultaneous Effects of Fit with Jobs, Groups, and Organizations." *Journal of Applied Psychology* 87: 985-993.
- _____, R. D. Zimmerman, and E. C. Johnson. 2005. "Consequences of Individual's Fit at Work: A Meta-Analysis of Person-Job, Person-Organization, Person-Group, and Person-Supervisor fit." *Personnel Psychology* 58: 281-342.
- Law, K. S., C. Wong, and W. H. Mobley. 1998. "Toward a Taxonomy of Multidimensional Constructs." *Academy of Management Review* 23: 741-755.
- Maruyama, G. M. 1998. *Basics of Structural Equation Modeling*. Sage.
- Maurer, T. J., M. Lippstreib, and T. A. Judge. 2007. "Structural Model of Employee Involvement in Skill Development Activity: The Role of Individual Differences." *Journal of Vocational Behavior* 72: 336-350.
- Moos, R. H. 1987. "Person-Environment Congruence in Work, School, and Health Care Settings." *Journal of Vocational Behavior* 31: 231-247.
- Nagy, M. S. 2002. "Using a Single-Item Approach to Measure Facet Job Satisfaction." *Journal of Occupational and Organizational Psychology* 75: 77-86.
- O'Reilly, C. A., J. Chatman, and D. F. Caldwell. 1991. "People and Organizational Culture: A Profile Comparison Approach to Assessing Person-Organization Fit." *Academy of Management Journal* 34: 487-516.
- Ostroff, C. and M. Schulte. 2007. "Multiple Perspectives of Fit in Organizations across Levels of Analysis." Chapter in *Perspectives on Organizational Fit*. Eds. C. Ostroff and T. A. Judge. New York: Lawrence Erlbaum Associates. pp. 287-315.
- Parsons, F. 1909. *Choosing a Vocation*. Boston, Houghton Mifflin.
- Piccolo, R. F., M. Bardes, D. M. Mayer, and T. A. Judge. 2008. "Does High Quality Leader-Member Exchange Accentuate the Effects of Organizational Justice?" *European Journal of Work and Organizational Psychology* 17: 273-298.
- Piccolo, R. and J. Colquitt. 2006. "Transformational Leadership and Job Behaviors: The Mediating Role of Core Job Characteristics." *Academy of Management Journal* 49: 327-340.
- Podsakoff, P. M., S. B. MacKenzie, R. Moorman, and R. Fetter. 1990. "The Impact of Transformational Leader Behaviors on Employee Trust, Satisfaction, and

- Organizational Citizenship Behaviors." *Leadership Quarterly* 1: 107-142.
- _____, _____, J. Y. Lee, and N. P. Podsakoff. 2003. "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies." *Journal of Applied Psychology* 88: 879-903
- _____, and D. W. Organ. 1986. "Self-Reports in Organizational Research: Problems and Prospects." *Journal of Management* 12: 531-544.
- _____, W. D. Todor, R. A. Grover, and V. L. Huber. 1984. "Situational Moderators of Leader Reward and Punishment Behaviors: Fact or Fiction?" *Organizational Behavior and Human Performance* 34: 21-63.
- Porter, L. W., R. M. Steers, R. T. Mowday, and P. V. Boulian. 1974. "Organizational Commitment, Job Satisfaction, and Turnover among Psychiatric Technicians." *Journal of Applied Psychology* 59: 603-9.
- Rynes, S. L. and B. Gerhart. 1990. "Interviewer Assessments of Applicant "Fit": An Exploratory Investigation." *Personnel Psychology* 43: 13-35.
- Schneider, B. 1987. "The People Make the Place." *Personnel Psychology* 40: 437-453.
- Sekiguchi, T. 2004. "Toward a Dynamic Perspective of Person-Environment Fit." *Osaka Keidai Ronshu* 55: 177-190.
- _____. 2007. "A Contingency Perspective of the Importance of PJ fit and PO Fit in Employee Selection." *Journal of Managerial Psychology* 22: 118-131.
- Tabachnick, B. G. and L. S. Fidell. 2006. *Using Multivariate Statistics* (4th Ed). Harper Collins, New York.
- Talbot, D. and J. Billsberry. 2007. "Employee Fit and Misfit: Two Ends of the Same Spectrum?" Paper presented at the 1st Global e-Conference on Fit (paper available upon request).
- Turban, D. B. and T. L. Keon. 1993. "Organizational Attractiveness: An Interactionist Perspective." *Journal of Applied Psychology* 78: 184-193.
- Vancouver, J. B. and N. W. Schmitt. 1991. "An Exploratory Examination of Person-Organization Fit: Organizational Goal Congruence." *Personnel Psychology* 44: 333-352.
- Van Vianen, A. E. M. and J. W. Stoelhorst. 2007. "Homogeneity of Personalities Generating Organizational Culture: Bottom-Up Rather Than Top-Down Fit." Keynote paper presented at the 1st Global e-Conference on Fit (paper available upon request).
- Verquer, M. L., T. A. Beehr, and S. H. Wagner. 2003. "A Meta-Analysis of Relations between Person-Organization Fit and Work Attitudes." *Journal of Vocational Behavior* 63: 473-489.
- Williams, L. J., J. A. Cote, and M. R. Buckley. 1989. "Lack of Method Variance in Self-Reported Affect and Perceptions at Work: Reality or Artifact?" *Journal of Applied Psychology* 74: 462-468.

- Top Management Team Communication Networks, Environmental Uncertainty, and Organizational Performance: A Contingency View 436
Xin Liang, Hermann Achidi Ndofor, Richard Priem, and Joseph Picken

This paper contributes to the top management team (TMT) communication and social network literatures by arguing that environmental uncertainty affects the relationship between TMT network communication patterns and firm performance. This argument is tested with data from 404 TMT executives in 32 firms. The results indicate that as environmental uncertainty increases, concomitant increases in TMT network communication density are necessary for high performance, but unexpectedly, concomitant increases in TMT network communication centrality also are necessary for high performance. These findings and their implications for future research on TMT communication patterns are discussed.

- Incumbents Adaptation to Competence-Destroying Change: Role of Prior Experience and Knowledge Sourcing456
Mujtaba Ahsan, Mine Ozer, and Ekin Alakent

The survival and growth of incumbent firms during periods of competence-destroying technological change depend on their ability to learn new technologies and introduce new products based on them. To do this successfully, incumbents must learn to absorb and assimilate new knowledge, and undertake external boundary spanning search. Although previous studies have investigated these relationships, typically they have taken a macro perspective. In order to gain a better understanding of these relationships, this study is conducted at the firm-therapeutic level in a pharmaceutical industry setting. The results of this study show that incumbent firms that leverage their prior experience, develop absorptive capacity, and undertake external boundary spanning search are successful in adapting to the new technologies.

- Testing a Multidimensional Theory of Person-Environment Fit 476
Julian A. Edwards and Jon Billsberry

The current study examines the validity of a multidimensional Person-Environment (PE) fit model proposed by Jansen and Kristof-Brown (2006). The overall aim of the paper is to test the model's factor structure and influences upon outcome measures. A panel of organizational employees from a wide range of companies and locations were asked to complete

a survey (n = 1,875) measuring five discrete dimensions of perceptual PE fit (Person-Organization, Person-People, Person-Job, Person-Group, and Person-Vocation) and three outcomes (organizational commitment, intention to leave, and job satisfaction). The first sequence of analysis tested the proposed model using Confirmatory Factor Analysis (CFA) statistical approaches. Model comparisons showed that Jansen and Kristof-Brown's (2006) original model in which the five dimensions of fit coalesce into a multidimensional construct was a poor fit with the data, but that a model in which the five dimensions of fit operate independently fit the data well. The second sequence of analysis found that the model without the multidimensional construct strongly predicted the outcomes of commitment, job satisfaction, and intention to leave. This paper discusses the implication of this research in relation to the PE fit literature.

Perceptions of Organizational Politics: A Meta-Analysis of Theoretical Antecedents 494
Guclu Atinc, Mahmoud Darrat, Bryan Fuller, and Barry W. Parker

This study presents a quantitative review of research examining variables thought to influence the development of perceptions of organizational politics (POP). The results provide support for most of the relationships proposed in theoretical models (e.g., Ferris *et al.*, 1989; Ferris *et al.*, 2002). Job/work environment influences are found to have the strongest and most consistent relationship with politics perceptions (e.g., trust, participation in decision-making, leader-member exchange, met expectations, and opportunity for development). Organizational influences which are found to be related to perceptions of organizational politics include centralization, formalization, and procedural justice. Demographic variables are found to have little or no relationship with politics perceptions, although personality variables (i.e., Machiavellianism, locus of control, positive affect, and negative affect) exhibit moderate to moderately strong relationships.

Research Report

The Relationship between Accounting and Market Measures of Firm Financial Performance: How Strong Is It? 513
Richard J. Gentry and Wei Shen

This study addresses an important ongoing debate in the management literature about the relationship between accounting and market measures of firm financial performance, namely, whether it is sufficiently strong so that researchers can treat them as equivalent, interchangeable indicators of firm financial performance. Using annual financial data from all the publicly traded U.S. firms in the COMPUSTAT database from 1961 to 2008, this study finds that, although measures of accounting profitability and market performance are positively correlated across industries, their

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