

Development of a Multidimensional Instrument of Person-Environment Fit: The Perceived

Person-Environment Fit Scale (PPEFS)

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Development of a Multidimensional Instrument of Person-Environment Fit: The Perceived Person-Environment Fit Scale (PPEFS)

ABSTRACT

This research identifies four challenges in the field of person-environment fit (PE fit): the multidimensionality of PE fit, the integration of fit theories, the simultaneous effects of the multiple dimensions, and the function of the dimensions. To address those challenges, we develop a theory-driven and systematically-validated multidimensional instrument, the Perceived Person-Environment Fit Scale (PPEFS), consisting of four measures: the Person-Job Fit Scale (PJFS), the Person-Organization Fit Scale (POFS), the Person-Group Fit Scale (PGFS), and the Person-Supervisor Fit Scale (PSFS). Data are collected from 532 employees and 122 managers for two independent studies with multiple rater sources and multiple time points. A series of validation analyses and hypothesis tests reveal that the PPEFS measures have good psychometric properties (i.e., reliability, convergent validity, discriminant validity, and criterion-related validity) and exhibit incremental validity above and beyond Cable and DeRue's (2002) fit measures. Furthermore, the measures are reflected by a superordinate (vs. aggregate) construct of PE fit. Overall, the four different types of fit significantly predict in-role behavior, job satisfaction, intent to quit, and organizational citizenship behavior (OCB), each explaining the greatest amount of variance in different outcomes. The PPEFS should prove useful in future research regarding PE fit.

Keywords: person-environment fit, person-job fit, person-organization fit, person-group fit, person-supervisor fit, scale development

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“...recent advances in fit theory have recognized that the most rewarding experiences are those in which multiple types of fit exist simultaneously. That has led to conceptual work exploring PE fit as a multidimensional construct...” (Kristof-Brown & Guay, 2011, p. 13)

The match between individuals and the environment, or PE fit, has long been a research topic of interest to industrial and organizational psychologists (Kristof-Brown, Zimmerman, & Johnson, 2005). Academicians are not alone in their interest; PE fit has attracted the attention of recruiters, job seekers, and incumbent workers in the business world (Kristof-Brown, 2000). Over the decades of PE fit research, four types of fit have emerged as the most studied phenomena (Kristof-Brown & Guay, 2011): person-job fit (PJ fit), person-organization fit (PO fit), person-group fit (PG fit), and person-supervisor fit (PS fit). These dimensions of PE fit have contributed to the literature on work attitudes, turnover, performance, job search, and managerial selection decisions (Kristof-Brown et al., 2005).

The concept of person-environment fit is grounded in the interactionist theory of behavior. Early works such as Pervin (1968) rested upon the assumption that certain environments correspond to each individual, mostly matching the characteristics of the individual's personality, and that this correspondence, in turn, results in higher performance, higher satisfaction, and less stress for the individual. Since Pervin, research using diverse representations of fit has proliferated in support of the validity of PE fit (Kristof-Brown et al., 2005). However, four important challenges require further attention: the consideration of multiple dimensions of PE fit, the integration of PE fit theories, the simultaneous assessment of the effects of the multiple dimensions, and the analysis of the function of the dimensions. Our study addresses these challenges by employing two independent studies to develop a multidimensional scale of perceived PE fit: the Perceived Person-Environment Fit Scale (PPEFS). This scale is composed

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of four measures: the Person-Job Fit Scale (PJFS), the Person-Organization Fit Scale (POFS), the Person-Group Fit Scale (PGFS), and the Person-Supervisor Fit Scale (PSFS). The following sections will address each of the four challenges.

MULTIDIMENSIONALITY OF PE FIT

The first challenge pertains to the dimensionality of PE fit. Though PE fit literature has been an active body of research for decades, the field was once characterized as “elusive,” indicating that researchers in the field remained generally unclear about the construct of fit. This criticism continued until quite recently, when an increasing number of studies theorized PE fit as multidimensional (Edwards & Billsberry, 2010; Jansen & Kristof-Brown, 2006; Wheeler, Buckley, Halbesleben, Brouer, & Ferris, 2005). The main argument of this line of research is that studying fit from only a single dimension is inconsistent with how individuals experience fit because people are simultaneously nested in multiple aspects of an environment. Recent advances in fit research have described this integrative view as the “nested” or “holistic” view (Jansen & Kristof-Brown, 2006; Kristof-Brown & Guay, 2011). Ostroff, Shin, and Kinicki (2005) asserted that focusing on only one or a few types of fit generates a limited picture of the effects of fit because different types of fit have been revealed to have varying effects on employee attitudes and behavior.

In addition to focusing on the multidimensionality of PE fit (e.g., PJ, PO, PG, and PS), researchers should also consider the multiple content dimensions (e.g., values, goals, personality, and interests) of each individual dimension of PE fit. Edwards and Cooper (1990) argued that many researchers had covered only a very limited number of content dimensions. Such minimal coverage creates problems including content validity issues and incomplete determinants of criteria. In a review regarding the conceptualization and measurement of perceived PO fit,

Piasentin and Chapman (2006) called for future research to focus on clearly measuring different characteristics of fit, such as values and goals. To address this issue, we have developed a new scale that addresses multiple types of PE fit and multiple content dimensions for each type of fit.

A second challenge in the current literature is the integration of PE fit theories. For many years, researchers have studied PE fit on the basis of a single dimension. This approach has allowed for a thorough and in-depth investigation of each dimension of fit, but this tendency has obscured our understanding of the simultaneous theoretical effects of fit on major outcomes. As early as Kristof (1996), the literature was calling for integrations of multiple theories of fit. As noted in our opening quote, recent developments in PE fit research have led to theorizations of fit based on multiple theories. The integration of different fit theories would allow researchers to paint a richer portrait of PE fit phenomena and investigate the unique effects of each theory on these phenomena (Kristof-Brown & Guay, 2011).

Most current efforts to integrate PE fit theories involve combinations of two or three dimensions of fit (Cable & DeRue, 2002; Greguras & Diefendorff, 2009; Kristof-Brown, Jansen, & Colbert, 2002; Lauver & Kristof-Brown, 2001; Wang, Zhan, Mccune, & Truxillo, 2011). Other studies have incorporated four or more dimensions (Edwards & Billsberry, 2010; Jansen & Kristof-Brown, 2006; Wheeler et al., 2005). Following this line of research, our study develops a four-dimension PE fit scale grounded on the complementarity-based view (Muchinsky & Monahan, 1987), Holland's theory on occupational interests (Holland, 1996), the need-fulfillment paradigm (French & Kahn, 1962), the attraction-selection-attrition framework (Schneider, 1987), the similarity attraction paradigm (Byrne, 1971), and the interpersonal attraction theory (Huston & Levinger, 1978).

A third challenge involves simultaneously assessing the contributions of various types of

PE fit to the theoretically-related outcome constructs. Kristof-Brown and Guay (2011) have asserted that “multicollinearity is often a concern when determining the unique impact of various types of fit” (p. 37). This is confirmed by meta-analytic results showing moderate to high correlations between types of perceived fit (Kristof-Brown et al., 2005; Oh, Guay, Kim, Harold, Lee, Heo, & Shin, 2014). The current practice of pulling scales of different fit types from separate sources may render the various scales indistinguishable, increasing the likelihood of high correlations among the various types of fit. Given these conditions, this study intends to develop a multidimensional PE fit instrument in which the included content dimensions are well thought out and empirically proven to be distinct.

The final challenge found in the PE fit literature pertains to assessments of the function (e.g., superordinate vs. aggregate) of the multidimensional construct of PE fit. With an integrated multidimensional fit scale, researchers in the field can further explore how different types of fit correspond to a higher-order construct of PE fit. Doing so would provide them with a more realistic view of the work experience. In general, multidimensional constructs can be distinguished by the direction of the relationship between the construct and its dimensions (MacKenzie, Podsakoff, & Podsakoff, 2011). A construct is described as *superordinate* when the relationships flow from the construct to its dimensions, in which case the construct is manifested by specific dimensions. In contrast, a construct is described as *aggregate* when the relationships flow from the dimensions to the construct, in which case the construct combines specific dimensions into a general concept. Superordinate constructs are widespread in organizational research on such topics as g-factor, personality, and general work values. Aggregate constructs are also common in literature regarding job satisfaction, job performance, and job characteristics. However, results regarding the function of PE fit have been mixed. As such, our study attempts

to advance this line of investigation by developing a theoretically-driven multidimensional PE fit instrument and by testing its function.

THEORIES, FIT DIMENSIONS, AND HYPOTHESES

The current study develops the content dimensions of each type of fit on the basis of corresponding theories and an extensive review of the literature on PE fit. This section addresses the dimensionality of each type of fit under examination, and proposes hypotheses for the effects of the different types of fit and for the function of them. The outcome variables consist of employee in-role behavior, job satisfaction, intent to quit, and OCB. These variables are theoretically related to person-environment fit concepts, commonly cited as outcomes in Kristof-Brown et al.'s (2005) meta-analytical article, and denote a fair representation of attitude variables, performance outcomes, and turnover-intention indices.

Person-Job Fit

“Person-job fit” is broadly defined as an individual’s compatibility with a specific job (Kristof, 1996). It is specifically defined by Edwards (1991) as the fit between the demands of a job and the abilities of an individual (demands-abilities fit or “DA fit”), or the needs of a person and the supplied attributes of a job (needs-supplies fit or “NS fit”). We argue that DA fit consists of the dimensions of KSAs (knowledge, skills, and abilities) and personality, and NS fit consists of the dimensions of interests and job characteristics.

In relation to DA fit, according to the complementarity-based view (Muchinsky & Monahan, 1987), one complements the characteristics of an environment when one’s ability matches the job requirement. The most commonly used content definition for DA fit is the “KSAOs” (Bretz, Rynes, & Gerhart, 1993; Kristof-Brown, 2000). The acronym stands for Knowledge, Skill, Ability, and Other characteristics. Bretz et al. examined interview transcripts

and found that the most frequently mentioned determinant of PJ fit was job-related coursework or experience. In addition, jobs may require incumbents to possess a certain type of personality for better performance. Piasentin and Chapman (2006) postulated that personality characteristics and work-related skills/abilities may be important for assessing complementary fit perceptions. Past research has also used personality to measure perceived job fit (Lauver & Kristof-Brown, 2001).

With regard to NS fit, Holland's theory of occupational interests (Holland, 1996) could be used to include interests as a content dimension for NS fit. Holland's theory involves six personality types that describe individuals' career interests and their environment: realistic, investigative, artistic, social, enterprising, and conventional. In general, interests congruence is contributive to positive outcomes at work, such as satisfaction, retention and accomplishment. The need-fulfillment paradigm (French & Kahn, 1962) suggests that individuals compare their own needs (e.g., recognition and social involvement) with environmental supplies. It rests upon the proposition that people experience more positive work outcomes when their needs are fulfilled by environmental supplies. Kulik, Oldham, and Hackman (1987) proposed that PE fit (referring specifically to PJ fit in their article) can be a good match between certain job characteristics (skill variety, task identity, task significance, autonomy, and job feedback) and certain characteristics of the individual (knowledge and skills, growth needs, strength, and satisfaction with work context).

In sum, based on the complementarity-based view, Holland's (1996) theory on occupational interests, and the need-fulfillment paradigm, the present study contains four job fit dimensions: KSAs, personality, interests, and job characteristics. Empirical evidence has revealed that PJ fit is related to job/task performance (Li & Hung, 2010; Wang et al., 2011), job satisfaction (Cable &

DeRue, 2002; Wang et al., 2011), turnover intention (Wang et al., 2011), turnover decision (Cable & DeRue, 2002), and OCB (Li & Hung, 2010). Thus, we propose the following.

Hypothesis 1: PJ fit is related to in-role behavior (Hypothesis 1a), job satisfaction (Hypothesis 1b), intent to quit (Hypothesis 1c), and OCB (Hypothesis 1d).

Person-Organization Fit

“Person-organization fit” is defined as congruence between an individual and his or her organization in terms of such dimensions as values and goals (Kristof, 1996). Theoretically, Schneider’s (1987) attraction-selection-attrition framework, upon which much PO fit research has drawn, states that people are attracted to and selected by an organization with which they share values and attributes, a match which subsequently generates PO fit. When the match no longer exists, people opt to leave the organization. In fact, many PO fit studies contained only the value dimension (e.g., Cable & DeRue, 2002), while others specifically targeted goal congruence (Vancouver & Schmitt, 1991). However, PO fit dimensions comprised of values and goals have been used in previous research (Chuang & Sackett, 2005). Piasentin and Chapman (2006) reviewed 46 empirical studies that measured PO fit perceptions. Of these studies, 78% included value congruence variables and 20% included goal congruence variables. Hence, the current study proposes both values and goals as dimensions of perceived PO fit.

The attraction-selection-attrition framework in relation to PO fit has been shown to be associated with employee job performance (Kim, Aryee, Loi, & Kim, 2013), job satisfaction (Cable & DeRue, 2002; Kim et al., 2013; McCulloch & Turban, 2007; Vancouver & Schmitt, 1991; Wang et al., 2011), turnover intention (Vancouver & Schmitt, 1991; Wang et al., 2011), employee retention (McCulloch & Turban, 2007), and citizenship behaviors (Cable & DeRue, 2002; Kim et al., 2013). Thus, we hypothesize the following.

Hypothesis 2: PO fit is related to in-role behavior (Hypothesis 2a), job satisfaction (Hypothesis 2b), intent to quit (Hypothesis 2c), and OCB (Hypothesis 2d).

Person-Group Fit

“Person-group fit” has been defined as compatibility between individuals and their work group (Kristof, 1996). The similarity attraction paradigm (Byrne, 1971) may help clarify the phenomena of PG fit. This paradigm predicts that a person is generally attracted to similar others in his or her social milieu. A large body of research has investigated how similarity in attitudes, personality, values, and goals can facilitate attraction. The reason for similarity-based attraction may be that similarity appears to help predict how other people behave. Research has found that personality similarity helps facilitate communications among employees and foster social integration (Schaubroeck & Lam, 2002).

Most of the PG fit studies are quite specific about the characteristics being examined, focusing on such issues as person-group personality fit (Seong & Kristof-Brown, 2012), values fit (Seong & Kristof-Brown, 2012), goals fit (Kristof-Brown & Stevens, 2001), or work style fit (Kristof-Brown et al., 2002). Prior group composition studies have also shown that behavioral and attitudinal outcomes for groups and members can be traced back to the composition of group members in terms of values (Harrison, Price, Gavin, & Florey, 2002), goals (Shaw, 1981), personality (Harrison et al., 2002), work style (Riordan, 2000), and lifestyle (DiMarco, 1975). Hence, the current study includes values, goals, and group member attributes (personality, work style, and lifestyle) as dimensions of person-group fit.

Empirical research has shown that PG fit is significantly related to individual performance (Kristof-Brown & Stevens, 2001), job satisfaction (Wang et al., 2011), turnover intention (Wang et al., 2011), and OCB (Seong & Kristof-Brown, 2012). Therefore, we postulate the following.

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Hypothesis 3: PG fit is related to in-role behavior (Hypothesis 3a), job satisfaction (Hypothesis 3b), intent to quit (Hypothesis 3c), and OCB (Hypothesis 3d).

Person-Supervisor Fit

“Person-supervisor fit” denotes the match between an individual and his or her supervisor in a work environment, and is by far the most well-studied dyadic fit in a work setting (Kristof-Brown et al., 2005). Interpersonal attraction theory (Huston & Levinger, 1978) explains that an individual is attracted to another individual on the basis of similar characteristics regarding life goals, personality, activity preferences, values, and so on. A subordinate and a supervisor who are attracted to each other on the basis of such similarity are said to “fit” each other. Interpersonal attraction has been an important research topic in organizational psychology. Previous PS fit research has examined values (Hoffman, Bynum, Piccolo, & Sutton, 2011; Van Vianen, 2000), personality (Schaubroeck & Lam, 2002), work style (Turban & Jones, 1988), lifestyle (DiMarco, 1974), and leadership style (Chuang, Judge, & Liaw, 2012). Drawing on these findings, the current study has operationalized the content dimensions of PS fit to include values, personality, work style, lifestyle, and leadership style.

Research has found PS fit to be related to in-role performance (Huang & Iun, 2006), job satisfaction (Ostroff et al., 2005), turnover intention (Ostroff et al., 2005; Van Vianen, 2000), and OCB (Huang & Iun, 2006). Therefore, we posit the following.

Hypothesis 4: PS fit is related to in-role behavior (Hypothesis 4a), job satisfaction (Hypothesis 4b), intent to quit (Hypothesis 4c), and OCB (Hypothesis 4d).

Function (Superordinate vs. Aggregate) of PE Fit Dimensions

Research has recently begun to explore the function of the relationships among fit dimensions, both conceptually (Jansen & Kristof-Brown, 2006) and empirically (Edwards &

Billsberry, 2010; Seong & Kristof-Brown, 2012; Seong, Kristof-Brown, Park, Hong, & Shin, in press). The implications from the explorations have been mixed. On one hand, PE fit dimensions could form an aggregate model. Jansen and Kristof-Brown introduced the concept of multidimensional PE fit to reflect the fact that individuals are faced with a holistic environment, which encompasses various aspects. They proposed a combined (aggregate) model where the overall PE fit is an algebraic combination of multiple dimensions. Supporting this assertion, research has theorized that different types of fit are distinguishable and lead to different outcomes. For instance, Kristof-Brown (2000) found that recruiters are able to distinguish between applicants' PJ fit and PO fit, and those two types of fit offer unique predictions of hiring recommendations. In Lauver and Kristof-Brown (2001), employees' perceptions of PJ and PO fit were found to be distinct constructs, each of which has a unique impact on job satisfaction and intent to quit. Similarly, Cable and DeRue (2002) showed that employees can differentiate between needs-supplies fit, demands-abilities fit, and PO fit, each of which has a different pattern in predicting outcome variables. The foregoing conclusions have led the field to believe that the various types of fit are theoretically distinct, rendering an aggregate model of PE fit. Therefore, we propose the following.

Hypothesis 5a: PE fit is an aggregate multidimensional construct.

On the other hand, empirical results based on tests of a multidimensional construct of PE fit have provided evidence for alternative functional forms. Edwards and Billsberry (2010) tested Jansen and Kristof-Brown's (2006) aggregate model against a competing model, in which multiple dimensions of fit were proposed to be distinct, assuming no overarching sense of fit. The authors found that the aggregate model fit poorly, whereas the distinct model fit well. Those authors did not, however, test a superordinate model. Adding to the complication, Seong and

Kristof-Brown (2012) tested a multidimensional model of individual-level PG fit and found that PG fit was better suited to a superordinate model than to an aggregate or distinct model.

Similarly, Seong et al. (in press) found that group-level PG fit is a superordinate construct, manifested by subdimensions of supplementary and complementary fit. These results suggest that fit dimensions may be driven by a higher order perception of overall fit. Hence, we propose a competing hypothesis.

Hypothesis 5b: PE fit is a superordinate multidimensional construct.

GENERAL METHOD

Overview and Participants

Two separate studies covering a total of 532 employees and 122 managers were employed for the development of the Perceived Person-Environment Fit Scale (PPEFS). These samples were collected over multiple points in time and represent a diverse cohort of respondents from various industries and organizations. Specifically, Study 1 contained data from 328 employees and 67 managers and was used to conduct all analyses described in the “Analysis Strategies” section, below. Study 2 used a sample from the service industry that consisted of 204 service-type employees and 55 managers. Study 2 served to replicate the results of Study 1 regarding discriminant validity and criterion-related validity.

Measures of the PPEFS

All items used in the PPEFS were newly developed for the purpose of this research. The PJFS consists of DA fit (KSAs and personality) and NS fit (interests and job characteristics). The POFS consists of two dimensions: values and goals. We used the four general values (i.e., honesty, achievement, fairness, and helping others) which have been shown to be operative in the workplace (Ravlin & Meglino, 1987) with the Comparative Emphasis Scale. For goals, we

adopted Van Vianen's (2000) concepts of Organizational Goal Orientation (i.e., reward, effort, and competition). For the PGFS, we developed ten items covering the content dimensions of values (Comparative Emphasis Scale), goals (Organizational Goal Orientation), and member attributes. For the PSFS, we developed five items comprising the content dimensions of values, personality, work style, lifestyle, and leadership style. The Appendix contains a list of the final items of the PPEFS.

 Insert Appendix about here

Analysis Strategies

To ensure the psychometric properties of the PPEFS and to test the hypotheses, we conducted a series of analyses suggested in the scale development literature (Hinkin, 1998; Judge, Erez, Bono, & Thoresen, 2003; Pierce, Gardner, Cummings, & Dunham, 1989). In the following, we elaborate on each of the analyses performed.¹

Stage 1: CFA and reliability. We performed a CFA using LISREL 8.54 to corroborate the structure of the model (Hinkin, 1998). Models with χ^2/df equal to 2 or 3, RMSEA less than .08, and CFI and IFI greater than .90 are acceptable (Bentler & Bonett, 1980). Based on the recommendation of Anderson and Gerbing (1988), we formed alternative models and compared them with the hypothesized model by using chi-square difference tests. We estimated reliability using Cronbach's alpha. A newly developed scale with an alpha of .70 or higher is deemed acceptable (Nunnally, 1976).

Stage 2: Convergent, discriminant, and criterion-related validity. A scale has convergent validity when it significantly correlates with another existing scale of the same construct (Hinkin,

¹ From stage 1 to stage 3, we tested the four fit measures individually, and from stage 4 to stage 6, we tested the four fit measures simultaneously.

1998). For each fit type, we used a relevant existing fit scale. Discriminant validity is ensured when the scale has a weak or negligible correlation with other theoretically-unrelated measures assessed by the same source (Hinkin, 1998). In this study, we correlated the fit measure with employee demographics (i.e., age and gender) because no compelling theory implies that employees of different demographics will experience different levels of fit (Liao & Chuang, 2004). Criterion-related validity is achieved when the scores of a scale correlate with theoretically-related constructs or variables in the nomological net (Hinkin, 1998). For all three validation methods, we calculated Pearson correlations.

Stage 3: Usefulness analyses. Usefulness analyses (Judge et al., 2003) are used to determine whether a scale has incremental validity beyond existing measures. The present study used a relevant existing fit measure and the PPEFS to predict multiple outcome criteria that are theoretically related to PE fit (i.e., in-role behavior, job satisfaction, intent to quit, and OCB). Using hierarchical regressions, we conducted two procedures. For procedure 1, we first entered the existing fit measure to predict the criterion variables, and then added the corresponding PPEFS measure to the regressions to investigate the change in multiple correlations. A significant ΔR^2 indicates the incremental validity of—and, thus, the usefulness of—the PPEFS measure. We also performed the reverse situation (procedure 2), first entering the PPEFS measure and then entering the existing fit measure.

Stage 4: Relations among and convergent/discriminant validity of the PPEFS measures. We investigated the relations among the individual PPEFS measures by computing bivariate correlations. In addition, we examined the convergent and discriminant validity of our PPEFS measures, all simultaneously present in one model, following procedures recommended by Anderson and Gerbing (1988). Specifically, we estimated a second-order measurement model

where the second order contained the four PPEFS measures (i.e., PJFS, POFS, PGFS, and PSFS) and the first order included two subscales of POFS and three subscales of PGFS. Convergent validity is assessed by determining “whether each indicator’s estimated pattern coefficient on its posited underlying construct factor is significant (greater than twice its standard error)” (Anderson & Gerbing, 1988, p. 416). Discriminant validity is assessed by determining “whether the confidence interval (\pm two standard errors) around the correlation estimate between the two factors includes 1.0” (Anderson & Gerbing, 1988, p. 416). To determine whether our second-order model was better, we applied chi-square difference tests and compared our model with two competing models: one with the first-order subscales removed (four-factor model) and the other with all items linking directly to a general factor (one-factor model).

Stage 5: Contributions of the PPEFS measures. To test Hypotheses 1a-1d, 2a-2d, 3a-3d, and 4a-4d and to simultaneously test the effects of the PPEFS measures, we adopted Johnson’s (2000) relative weight analysis to take into consideration the intercorrelations among the PPEFS measures. This method can be used to estimate the relative weight of the predictors and is particularly useful when the predictors have non-zero intercorrelations. The “relative weight” of each predictor refers to the proportionate contribution each predictor makes to R^2 , taking into account both the predictor’s unique effect and its effect when combined with other variables. We also rescaled the weight for each predictor by dividing the relative weight of each predictor by the total R^2 of the full model. In doing so, the sum of the relative weights of the predictors was equal to R^2 , improving the interpretability of the relative importance of the predictors. In this research, we used multiple regressions and regressed each outcome variable on the employees’ demographic variables (i.e., age, gender, education, and tenure) and the four measures of the PPEFS (cf. Oh et al., 2014).

*Stage 6: Function (superordinate vs. aggregate) of the PPEFS measures.*² To test Hypotheses 5a and 5b, we followed suggestions in the extant literature regarding estimating the functions of multidimensional models (MacKenzie et al., 2011; Seong & Kristof-Brown, 2012; Tang & Sutarso, 2013) and assessed an aggregate and a superordinate model (Figure 1) of the PPEFS measures. We then compared the fit indices of these two models and tested whether each indicator's estimated coefficient on its posited underlying construct factor was significant (greater than twice its standard error) for each model (Anderson & Gerbing, 1988).

 Insert Figure 1 about here

STUDY 1

The purpose of Study 1 was to examine the psychometric properties and the hypotheses in relation to the PPEFS by performing all of the analyses described in the Analysis Strategies section above. In the following, we elaborate on the sample, procedure, and measures.

Sample and Procedure

We approached 385 employees and their managers (72) who were from diverse organizations and occupations. For each organization, we identified a contact person who independently distributed our surveys to participating employees and managers. When the span of control of a manager exceeded six individuals, we sought to reduce manager fatigue by having the corresponding contact person randomly pick six of that manager's subordinates. After the surveys were completed, each contact person retrieved the sealed surveys from his or her organization's participants. The participants also had the option of sending their completed

² We sincerely thank the Editor for suggesting that we estimate whether our PPEFS measures were superordinate or aggregate. This investigation allowed us to join the current discussions regarding the function and dimensionality of PE fit.

surveys directly back to us, the researchers. Neither the contact person nor the participants were aware of the purpose of the study. To avoid common method variance (CMV; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), employees filled out the survey containing items about the PPEFS at Time 1. A week later (Time 2), they were asked to respond to a second survey regarding their job satisfaction, intent to quit, OCB, and demographic characteristics. At the same time (Time 2), the employees' immediate managers were asked to evaluate their own demographic characteristics and the employees' in-role behavior. All participants were assured of the confidentiality of their responses. The response rate was 89% (343) for the employee survey and 93% (67) for the manager survey. The final usable matched data comprised 328 dyads. Of the employee participants, 37% were male, the average age was 30.97 years old, and the mean organizational tenure was 55.50 months. Of the participating managers, 40% were male, the average age was 38.45 years old, and the mean organizational tenure was 104.60 months.

Measures

Existing fit measures to test convergent validity and usefulness. For PJ fit, we used the 3-item DA fit measure and the 3-item NS fit measure from Cable and DeRue (2002). Sample items include "My abilities and training are a good fit with the requirements of my job" for DA fit, and "The attributes that I look for in a job are fulfilled very well by my present job" for NS fit. Reliability was .90 for DA fit and .91 for NS fit. We also adopted Cable and DeRue's 3-item PO fit measure. A sample item is "My organization's values and culture provide a good fit with the things that I value in life." Reliability was .94. We adjusted Cable and DeRue's 3-item PO fit measure to assess person-group (PG) fit, an approach consistent with Greguras and Diefendorff (2009) and Seong and Kristof-Brown (2012). A sample item is "My personal values match my group's values and culture." Reliability was .92. Finally, we reworded Cable and DeRue's 3-item

PO fit measure to capture PS fit, following the approach taken by Hoffman et al. (2011). A sample item is “The things that I value in life are very similar to the things that my supervisor values.” Reliability was .92.

Measures to test the discriminant validity. Those included employee *age* (in years) and *gender* (male = 1, female = 0). This practice followed the strategy used by Liao and Chuang (2004).

Outcome variables to test criterion-related validity and usefulness, as well as the contributions and function of the PE fit measures. Those consisted of manager-evaluated *employee in-role behavior*, and employee-reported *job satisfaction*, *intent to quit*, and *OCB*. For employee in-role behavior, we used the 4 items from Van Dyne and LePine (1998), a sample of which is “This particular employee performs the tasks that are expected as part of the job.” Reliability was .92. For job satisfaction, we adopted the 5 items from Brayfield and Rothe (1951), a sample of which is “I feel fairly satisfied with my present job.” Reliability was .82. For intent to quit, we used the 3 items from Lauver and Kristof-Brown (2001), a sample of which is “If I have my way, I won’t be working for this company a year from now.” Reliability was .83. For OCB, we used the 24 items from Podsakoff, MacKenzie, Moorman, and Fetter (1990), a sample of which is “I willingly help others who have work related problems.” Reliability was .92.

STUDY 2

We conducted a second study to replicate the analyses regarding discriminant validity and criterion-related validity. The sample for Study 2 differed from that of Study 1 in that it contained employees and managers working in service jobs, facilitating the generalizability of the PPEFS.

Sample and Procedure

A total of 222 service-type employees and 55 managers across a variety of industries,

organizations and occupations participated in this study. At each organization, we identified a contact person who administered one set of surveys to the employees and a separate set of surveys to the managers. Same study procedures applied in Study 1 (e.g., retrieval of the completed surveys, assurance of confidentiality, and etc.) were applied in Study 2. Employees responded to scales regarding the PPEFS, job satisfaction, and personal demographic characteristics. Supervisors provided their own demographic characteristics and rated the employees' job performance. After responses with missing data were discarded, the final sample comprised 204 employees and 55 managers. Of the employees, 36% were male, the average age was 30.00 years old, and the mean organizational tenure was 31.60 months. Of the managers, 59% were male, the average age was 36.40 years old, and the mean organizational tenure was 55.20 months.

Measures

Measures to test discriminant validity. We followed Liao and Chuang's (2004) practice of adopting demographics to test discriminant validity. Our measures included employee *age* (in years) and *gender* (male = 1, female = 0).

Measures to test criterion-related validity. Those were employee *job satisfaction* and *job performance*. For job satisfaction, we used the 5 items from Brayfield and Rothe (1951), a sample of which is "I find real enjoyment in my work." Reliability was .82. For job performance, we used the 7 job performance items from Liao and Chuang (2004), a sample of which is "Asking good questions and listening to find out what a customer wants." Reliability was .93.

OVERALL RESULTS

This section presents the results from both Study 1 and Study 2. Table 1 and Table 2 show the descriptive statistics and intercorrelations among the study variables in Study 1 and Study 2,

respectively. Table 3 shows the summary of the results by analysis approaches across the two studies.

 Insert Tables 1–3 about here

Stage 1: CFA and Reliability

The results of CFA are presented in Table 4. For PJFS, we selected the one-factor model (Model 1; $\chi^2 = 3.23$, $df = 2$, $p < .20$; $\chi^2/df = 1.62$; RMSEA = .04; CFI = 1.00; IFI = 1.00) because Model 2 did not result in a significantly better fit than Model 1 ($\Delta\chi^2 = .97$, $\Delta df = 1$). Further, we picked POFS with two sub-scales because Model 3 was significantly better than Model 4 ($\Delta\chi^2 = 292.48$, $\Delta df = 1$). Our PGFS showed three sub-scales because Model 5 was significantly better than Model 6 ($\Delta\chi^2 = 503.23$, $\Delta df = 3$). Finally, for the PSFS, the hypothesized Model 7 was acceptable. Because there were no theory- or method-based rival models to be formed, no chi-square difference test was performed. For all of the four fit constructs, all factor loadings were significant. Reliability estimates were .84 for PJFS, .91 for POFS, .89 for PGFS, and .90 for PSFS.

 Insert Table 4 about here

Stage 2: Convergent, Discriminant, and Criterion-related Validity

Convergent validity. We expected an association between each of our PPEFS measures and the corresponding existing measures we adopted. Results show that the correlation was .79 ($p < .01$) for PJFS, .76 ($p < .01$) for POFS, .68 ($p < .01$) for PGFS, and .75 ($p < .01$) for PSFS. The above evidence shows that all of the four measures exhibited acceptable convergent validity.

Discriminant validity. We used age and gender demographics to test discriminant validity.

Results from Study 1 show that the PJFS was not significantly correlated with gender ($r = .08$, *n.s.*), but was significantly correlated with age ($r = .14$, $p < .01$), providing partial support for the discriminant validity of the PJFS. Results show that the POFS did not have a significant correlation with age ($r = .09$, *n.s.*), though it did with gender ($r = .14$, $p < .05$), thereby suggesting partial support for the discriminant validity of the POFS. The PGFS was not significantly correlated with age ($r = -.03$, *n.s.*), but was with gender ($r = .12$, $p < .05$), also implying partial support for its discriminant validity. The PSFS was not correlated with either employee gender ($r = .06$, *n.s.*) or age ($r = .08$, *n.s.*), providing strong support for its discriminant validity. Results from Study 2 show that none of the PPEFS measures was related to employee gender or age, with the exception of the PJFS, which was significantly related to employee age ($r = .18$, $p < .05$). Thus, discriminant validity was obtained for the PPEFS.

Criterion-related validity. Results from Study 1 reveal that all four measures of the PPEFS were significantly (all $ps < .01$) correlated with in-role behavior ($rs = .16-.42$), job satisfaction ($rs = .41-.57$), intent to quit ($rs = -.32-.42$), and OCB ($rs = .31-.51$). Therefore, criterion-related validity was obtained. Study 2 shows that all PPEFS measures were significantly (all $ps < .01$) related to employee job satisfaction ($rs = .49-.66$) and employee job performance ($rs = .20-.35$). Thus, criterion-related validity was replicated.

Stage 3: Usefulness Analysis

For PJFS, with procedure 1 (adding Cable and DeRue's PJ fit measure in the first step and then the PJFS in the second step), the addition of the PJFS significantly increased the multiple correlations. With procedure 2 (adding the PJFS in the first step and then the existing PJ fit measure in the second step), the existing job fit measure predicted the criteria over and above the PJFS in only two of the four cases. For POFS, with procedure 1, changes in multiple correlations

were significant in all four cases. With procedure 2, Cable and DeRue's measure had additional contributions in only two of the four cases. For PGFS, with procedure 1, the changes in multiple correlations were significant for all four outcome variables. With procedure 2, the PGFS had incremental validity for only two outcome variables. For PSFS, with procedure 1, except for one case, the addition of the PSFS significantly increased the multiple correlations. The same result pattern was present for procedure 2. This finding indicates that the PSFS and the existing scale both contributed something unique (Judge et al., 2003). The above results show that the PPEFS measures demonstrated incremental validity and made unique contributions above and beyond the measures' respective existing measure.

Stage 4: Relations among the PPEFS Measures, and Convergent and Discriminant Validity of the PPEFS Measures

Findings from the preceding validations enabled us to identify four fit measures (i.e., PJFS, POFS, PGFS, and PSFS). Pearson correlations among the four measures revealed that all relationships were significant ($r_s = .32-.68$, all $p_s < .01$; mean $r = .51$). The convergent validity of the measures was supported by the existence of a reasonable fit of the proposed second-order model (see Table 4, Model 8) and by the fact that all items loaded significantly on their respective construct. Discriminant validity was also achieved, as none of the confidence intervals around the correlation estimate between the two factors included 1.0. Finally, chi-square difference tests revealed that the second-order model fit significantly better than the four-factor model ($\Delta\chi^2 = 229.16$, $\Delta df = 5$; see Table 4, Model 9) and the one-factor model ($\Delta\chi^2 = 2026.79$, $\Delta df = 11$; see Table 4, Model 10). Taken together, these results imply that while the present study's different fit perceptions might correlate to one another, they are distinguishable and can serve as distinct constructs in future studies.

Stage 5: Contributions of the PPEFS Measures

We predicted that PJ fit (Hypotheses 1a-1d), PO fit (Hypotheses 2a-2d), PG fit (Hypotheses 3a-3d), and PS fit (Hypotheses 4a-4d) are each related to in-role behavior, job satisfaction, intent to quit, and OCB. Results from Table 5 indicate that all hypotheses were supported except for Hypotheses 3c, 4a, and 4c. In terms of relative weight, results show that different fit measures explained the greatest amount of variance in different outcomes. For example, the greatest amount of variance of in-role behavior was explained by PGFS (45%), followed by PJFS (40%), POFS (10%), and PSFS (5%).

 Insert Table 5 about here

Stage 6: Function (Superordinate vs. Aggregate) of the PPEFS Measures

Hypothesis 5a postulated that PE fit is an aggregate multidimensional construct, whereas Hypothesis 5b postulated that PE fit is a superordinate multidimensional construct. Results of the superordinate model show an acceptable model fit (see Table 4, Model 11). All factor loadings and paths of the model were significant. The results of the aggregate model show an undesirable model fit (see Table 4, Model 12). None of the paths from the four fit measures to the PPEFS or from the PPEFS to the outcomes were significant. Therefore, Hypothesis 5a was not supported, but Hypothesis 5b was supported. In a supplemental analysis, we estimated a distinct model, where we removed the PPEFS to estimate direct relationships between the four fit measures and the outcomes with all possible combinations. The results also show an undesirable model fit (see Table 4, Model 13). Most of the paths from the four measures to the outcomes were either non-significant or had an unexpected sign. In conclusion, the superordinate model better represented the relationships of the four fit measures.

Finally, we address the concern of CMV by following the procedural and statistical remedies recommended by Podsakoff et al. (2003). Procedurally, we assured our participants that their responses would be confidential. In addition, we collected data from two sources (i.e., employees and supervisors) at two different points in time. Statistically, we tested Harman's single-factor model using principal component factor analysis with an unrotated solution and found that the first factor accounted for only 28% of the variance. Second, we estimated and compared a series of measurement models including a one-factor model, a two-factor model (by source), another two-factor model (by time), and a hypothesized eight-factor model (i.e., PJ fit, PO fit, PG fit, PS fit, in-role behavior, job satisfaction, intent to quit, and OCB). Results revealed that the model fit of the eight-factor model was acceptable ($\chi^2 = 7092.84$, $df = 1823$, $p < .01$; $\chi^2/df = 3.89$; RMSEA = .09; CFI = .91; IFI = .91) and was significantly better than the other three models. Lastly, following Podsakoff et al., we estimated the superordinate model (Figure 1) with an unmeasured latent CMV construct as compared with one without the CMV construct. Results indicated that the model with CMV inevitably generated an improved fit, but none of the factor loadings of the CMV factor were significant. In addition, all path coefficients in these two models were significant, and the corresponding coefficient magnitudes between these two models were highly similar. All of the above results suggest that the relationships among the constructs are not largely affected by common method bias.

GENERAL DISCUSSION

Our study is among the first to develop a comprehensive perceived person-environment fit scale based on multiple theories. We conducted two independent studies that involved both multiple rater sources and data collection at multiple points in time. Our results suggested four measures of PE fit (i.e., PJ fit scale, PO fit scale, PG fit scale, and PS fit scale). When examined

individually, these measures' reliability values are all well above the critical level of .70 for newly developed scales (Nunnally, 1976). All measures demonstrate convergent validity with relevant existing measures, discriminant validity with demographic variables, and criterion-related validity with a series of theory-related criterion variables. Furthermore, the usefulness of the measures is obtained since the measures show incremental validity above and beyond an existing corresponding fit measure in the majority of cases. We tested the four measures simultaneously as well. The results of correlational analysis and discriminant validity testing of the measurement model suggest that the four measures are related but distinct. Besides, the relative importance of each measure differs largely by outcome variables. Lastly, the four measures are reflective of a superordinate construct of PE fit. Thus, this study offers sound empirical evidence of these new scales of PE fit perceptions.

Theoretical Contributions and Implications

This research into developing multidimensional scales for fit perceptions has several theoretical implications. First, our study constitutes a response to a two-decade-old call for research on the dimensionality of fit measures (Edwards & Cooper, 1990; Piasentin & Chapman, 2006). We responded to the call by incorporating multiple dimensions of PE fit into a new scale. Recent PE fit research has started to examine fit along the lines of a multidimensional theory (Edwards & Billsberry, 2010; Jansen & Kristof-Brown, 2006; Wheeler et al., 2005). For instance, Jansen and Kristof-Brown proposed a nested view for incorporating person-vocation, person-organization, person-group, person-job, and person-person fit into an integrative multidimensional theory of PE fit. Edwards and Billsberry's testing of the multidimensional PE fit model advanced by Jansen and Kristof-Brown appears to be the first empirical test of multiple dimensions of PE fit. These authors found that the different forms of fit separately affected the

outcomes of employee commitment, intent to quit, and job satisfaction. These recent advances in PE fit research have significantly contributed to a holistic and realistic view of how people experience PE fit.

Nevertheless, despite having recognized the imperativeness of viewing PE fit from a multidimensional perspective, the field still needs a multidimensional PE fit instrument that is guided by an integration of the existing PE fit theories. Fit studies have traditionally captured the many dimensions of PE fit by gathering measures from different sources (i.e., studies) with varying methods or formats. The drawback of this tradition is that the effects of the various types of PE fit vary not only because of the true variance of the fit construct but also because of the distinct methods. Our scale, the PPEFS, integrates multiple fit-related theories to provide a psychometrically sound tool that incorporates a full spectrum of fit dimensions.

Second, our study addresses the relations and differentiability among four dimensions of fit perceptions. Correlation analysis shows that the different types of PE fit are related to one another. Although this finding is largely consistent with Kristof-Brown et al.'s (2005) meta-analytical findings, one salient difference is found for the correlation between PJ fit and PO fit. Specifically, the meta-analytical result shows a correlation of .74 ($p < .05$) for direct measures of PJ fit and PO fit, whereas our result shows a correlation of .38 ($p < .01$). We surmise that one reason behind this large gap might be the lack of specifications of content dimensions in some studies.³ In comparison, Lauver and Kristof-Brown (2001) measured PJ fit using specific

³ For example, Kristof-Brown (2000) asked participants to measure PO fit using such general items as "To what degree does this applicant fit with your organization?" and "To what extent will other employees think this candidate fits well in your organization?" One sample item of PJ fit is "To what extent will other employees think this candidate is qualified to do this job?" The correlation between PJ and PO fit was .72 ($p < .05$). Similarly, Saks and Ashforth (1997) utilized such general items as "To what extent does your new organization measure up to the kind of organization you were seeking?" (PJ fit) and "To what extent does your new job measure up to the kind of job you were seeking?" (PO fit). The correlation was .56 ($p < .01$).

content dimensions such as skills, abilities, and personality, and measured PO fit using a content dimension of values, much like the content dimensions used in our study. They found a correlation of .18 ($p < .05$). Other studies using specific content dimensions resulted in lower correlations as well (e.g., Erdogan & Bauer, 2005). This preliminary evidence seems to underscore the importance of an unambiguous dimensionality of PE fit via the development of a multidimensional PE fit scale where the dimensionality of PE fit is well-defined by theory.

Third, our research reveals that, instead of being an aggregate or a distinct construct, PE fit is better conceptualized as a superordinate multidimensional construct manifested by its dimensions. Our result is similar to the findings of Seong and Kristof-Brown (2012) and Seong et al. (in press) which reflect that “the theoretical orthogonality in the [fit] concepts is not found in practice” (Seong et al., in press). Specifically, on one hand, researchers have theorized that people are able to distinguish between different types of fit, and that different types of fit can predict different outcomes. This implies an aggregate model. On the other hand, the meta analytic results found by Kristof-Brown et al. (2005) revealed that the correlations between multiple types of fit (i.e., PJ, PO, PG, and PS fit) range from .37 ($p < .05$) to .74 ($p < .05$). While the moderate to high correlations could imply either a superordinate or an aggregate model, Seong and Kristof-Brown, Seong et al., and our study all found PE fit to be a superordinate multidimensional construct.⁴ Because the field has just begun to investigate PE fit as a multidimensional construct, we encourage future research to use multidimensional fit scales to continue on this imperative line of research.

Fourth, in order to deal with the issue of multicollinearity among the various fit dimensions,

⁴ MacKenzie, Podsakoff, and Jarvis (2005) suggested that one understand the conceptualization of multidimensional constructs from how strongly the measures are correlated with each other. These authors stated that a superordinate model predicts that the measures should be correlated with each other because they share a common cause, whereas an aggregate model makes no predictions about the correlations (i.e., they could be at any level).

our study adopted relative weight analysis (Johnson, 2000) to specifically consider the correlations among the dimensions while attempting to delineate the relationship between a specific fit dimension and the outcomes. With this method, researchers avoid obtaining regression coefficients that are either not significant or have an unexpected sign (e.g., Cable & DeRue, 2002; Edwards & Billsberry, 2010). The field has barely started to examine the relative importance of various types of fit, and we encourage future research to follow this line of investigation using multidimensional PE fit scales in order to accumulate more evidence.

Finally, our PPEFS adds to Cable and DeRue's (2002) PJ fit and PO fit scales. We chose Cable and DeRue's scales for comparison purposes because their scales are frequently adopted and contain multiple dimensions for PE fit (Kristof-Brown & Guay, 2011). Based on the results of this comparison, the contribution of the PPEFS can be summarized from the theoretical and empirical perspectives. On one hand, theoretically, the PPEFS is based on many relevant PE fit theories. On the other hand, empirically, we prove that additional fit scales (i.e., PG fit and PS fit) are useful. In the decade that has passed since Cable and DeRue's prominent work appeared, the evolution of this field has accentuated the need for updated PE fit scales. As management literature continues to pay close attention to interpersonal relationships such as subordinate-supervisor dyads and coworker relationships (Oh et al., 2014), an updated instrument capable of including the PS fit and PG fit scales becomes an especially high priority. This need is also reflected by the fact that recent fit research has begun to adapt Cable and DeRue's PO fit items (measuring values fit) to gauge PS fit and PG fit (e.g., Greguras & Diefendorff, 2009; Hoffman et al., 2011; Seong & Kristof-Brown, 2012). This adaptation is less ideal since people trying to fit in with other people in a work setting (e.g., supervisor and coworkers) experience more aspects than are covered by values alone. Results of our usefulness

analysis reveal that each of the PPEFS measures did, indeed, have incremental validity above and beyond Cable and DeRue's corresponding scale. Nevertheless, we emphasize that the development of the PPEFS represents more than simply extra dimensions of PE fit or mere comparisons with existing scales, but also, in a more important sense, a PE fit instrument geared toward multidimensional theories of fit.⁵

Practical Implications

From an organization's point of view, having a means by which to identify distinct fit perceptions can help human resource departments select applicants, recognize specific areas for improvement and training, identify areas of role conflict, and reassign and redesign jobs and job tasks. For instance, by using the scores of the PSFS scale, managers can more easily identify the exact reason for a mismatch between a subordinate and a supervisor (e.g., mismatched personalities, work styles, or leadership styles). The managers will then be able to take appropriate actions to increase congruence. Even with the same content dimension applied to different types of PE fit (e.g., personality in PSFS and personality in PGFS), the PPEFS has ample managerial implications, because the meaning of the same content dimension may vary across different fit phenomena. For example, an extroverted individual may find him- or herself to be a good match with an extroverted supervisor and yet have a hard time "fitting in" with introverted coworkers in the same environment. Managers should be trained to recognize the different types of fit that employees experience to be better able to help employees with various needs. We suggest that organizations treat and use the four fit measures constructed herein as helpful managerial tools.

⁵ We thank the Editor and the two Reviewers for encouraging us to address the contribution of our PPEFS beyond the scales of Cable and DeRue (2002).

Limitations and Future Research

This current study has several limitations that point to possible research directions. First, sampling bias may be an issue for our study because we instructed our organizational contact persons to select employee participants. In addition to the procedural accounts described in the Sample and Procedure section, we performed the following empirical tests. First, we conducted t-tests on data from Study 2 in order to compare the usable and unusable cases in regards to the means of employee demographics, our PPEFS measures, and the outcome variables. Results indicate that the two groups were not statistically significantly different from each other, indicating no sampling bias. We did not perform t-tests for Study 1 because the unusable cases were not available. Second, a range restriction did not prevail in our research because we found that a majority of the correlations between our PPEFS measures and the theoretically-relevant outcome variables were significant. Third, the means and standard deviations of our PE fit measures were comparable to the means and standard deviations in existing PE fit studies. Based on this evidence, we hope that sampling bias might not represent a serious concern in our research.

Second, future research could extend our study to examine the conditions in which the activation of certain dimensions is greater than the activation of others. Kristof-Brown and Guay (2011) acknowledged that identifying why certain fit dimensions are salient is an important issue now that the multidimensionality of PE fit is recognized. This is important since having many distinct aspects of fit leads to a greater possibility of conflict among dimensions. Wheeler et al. (2005) stated that individual preferences or environmental cues may cause some fit dimensions to be more salient than others. Cognitive dissonance may occur when personal preferences and social cues activate different fit dimensions. However, having distinct dimensions of fit also has

benefits such as allowing one to create buffers between negative and positive fit experiences. Future research should consider studying the conditions in which—or the types of people for which—cognitive dissonance or buffering effects could take place.

Conclusion

By integrating various PE fit theories together for the development of a multidimensional instrument of perceived PE fit, our two studies follow a prominent current trend of PE fit research, which centers on clarifying the multidimensionality of PE fit. The results of a series of scale development validations and hypothesis tests reveal our PPEFS to be a psychometrically sound instrument. The many fit dimensions of this new instrument are distinct and proven to incrementally contribute to commonly adopted existing fit scales. With the development of this scale, we also advance the fit literature by identifying the relative weight and function of the fit dimensions. Our new instrument also contributes to the current theoretical and practical understanding of PE fit. We hope that, through the breadth, depth, and rigor of our approach, our instrument will prove useful in guiding future research regarding PE fit.

REFERENCES

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*, 411-423.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*, 588-606.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology, 35*, 307-311.
- Bretz, R. D., Jr., Rynes, S. L., & Gerhart, B. (1993). Recruiter perceptions of applicant fit: Implications for individual career preparation and job search behavior. *Journal of Vocational Behavior, 43*, 310-327.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology, 87*, 875-884.
- Chuang, A., Judge, T. A., & Liaw, Y. J. (2012). Transformational leadership and customer service: A moderated mediation model of negative affectivity and emotion regulation. *European Journal of Work and Organizational Psychology, 21*, 28-56.
- Chuang, A., & Sackett, P. R. (2005). The perceived importance of person-job fit and person-organization fit between and within interview stages. *Social Behavior and Personality, 33*, 209-226.
- DiMarco, N. (1974). Supervisor-subordinate life style and interpersonal need compatibilities as determinants of subordinate's attitudes toward the supervisor. *Academy of Management Journal, 17*, 575-578.
- DiMarco, N. (1975). Life style, work group structure, compatibility, and job satisfaction.

Academy of Management Journal, 18, 313-322.

Edwards, J. R. (1991). Person-job fit: A conceptual integration, literature review, and methodological critique. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 283-357). New York: John Wiley and Sons.

Edwards, J. A., & Billsberry, J. (2010). Testing a multidimensional theory of person-environment fit. *Journal of Managerial Issues*, 22, 476-493.

Edwards, J. R., & Cooper, C. L. (1990). The person-environment fit approach to stress: Recurring problems and some suggested solutions. *Journal of Organizational Behavior*, 11, 293-307.

Erdogan, B., & Bauer, T. N. (2005). Enhancing career benefits of employee proactive personality: The role of fit with jobs and organizations. *Personnel Psychology*, 58, 859-891.

French, J. R. P., Jr., & Kahn, R. L. (1962). A programmatic approach to studying the industrial environment and mental health. *Journal of Social Issues*, 18, 1-48.

Greguras, G. J., & Diefendorff, J. M. (2009). Different fits satisfy different needs: Linking person-environment fit to employee commitment and performance using self-determination theory. *Journal of Applied Psychology*, 94, 465-77.

Harrison, D. A., Price, K. H., Gavin, J., & Florey, A. (2002). Time, teams, and task performance: Changing effects of surface and deep-level diversity on group functioning. *Academy of Management Journal*, 45, 1029-1045.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104-121.

Hoffman, B. J., Bynum, B. H., Piccolo, R. F., & Sutton, A. W. (2011). Person-organization value congruence: How transformational leaders influence work group effectiveness. *Academy of*

Management Journal, 54, 779-796.

Holland, J. L. (1996). Exploring careers with a typology: What we have learned and some new directions. *American Psychologist*, 51, 397-406.

Huang, X., & Iun, J. (2006). The impact of subordinate-supervisor similarity in growth-need strength on work outcomes: The mediating role of perceived similarity. *Journal of Organizational Behavior*, 27, 1121-1148.

Huston, T. L., & Levinger, G. (1978). Interpersonal attraction and relationships. *Annual Review of Psychology*, 29, 115-156.

Jansen, K. J., & Kristof-Brown, A. (2006). Toward a multidimensional theory of person-environment fit. *Journal of Managerial Issues*, 18, 193-212.

Johnson, J. W. (2000). A heuristic method for estimating the relative weight of predictor variables in multiple regression. *Multivariate Behavioral Research*, 35, 1-19.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self-evaluations scale: Development of a measure. *Personnel Psychology*, 56, 303-331.

Kim, T. Y., Aryee, S., Loi, R., & Kim, S. P. (2013). Person-organization fit and employee outcomes: Test of a social exchange model. *The International Journal of Human Resource Management*, 24, 3719-3737.

Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49, 1-49.

Kristof-Brown, A. L. (2000). Perceived applicant fit: Distinguishing between recruiters' perceptions of person-job and person-organization fit. *Personnel Psychology*, 53, 643-671.

Kristof-Brown, A. L., & Guay, R. P. (2011). Person-environment fit. In S. Zedeck (Ed.), *American Psychological Association handbook of industrial and organizational psychology*

(Vol. 3, pp. 3-50). Washington DC: American Psychological Association.

- Kristof-Brown, A. L., Jansen, K. J., & Colbert, A. E. (2002). A policy-capturing study of the simultaneous effects of fit with jobs, groups, and organizations. *Journal of Applied Psychology, 87*, 985-993.
- Kristof-Brown, A. L., & Stevens, C. K. (2001). Goal congruence in project teams: Does the fit between members' personal mastery and performance goals matter? *Journal of Applied Psychology, 86*, 1083-1095.
- 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.
- Kulik, C. T., Oldham, G. R., & Hackman, J. R. (1987). Work design as an approach to person-environment fit. *Journal of Vocational Behavior, 31*, 278-296.
- Lauver, K. J., & Kristof-Brown, A. L. (2001). Distinguishing between employees' perceptions of person-job and person-organization fit. *Journal of Vocational Behavior, 59*, 454-470.
- LeBreton, J. M., Tonidandel, S., & Krasikova, D. V. (2013). Residualized relative importance analysis: A technique for the comprehensive decomposition of variance in higher order regression models. *Organizational Research Methods, 16*, 449-473.
- Li, C. K., & Hung, C. H. (2010). An examination of the mediating role of person-job fit in relations between information literacy and work outcomes. *Journal of Workplace Learning, 22*, 306-318.
- Liao, R., & Chuang, A. (2004). A multilevel investigation of factors influencing employee service performance and customer outcomes. *Academy of Management Journal, 47*, 41-58.
- MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The problem of measurement model

misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology*, *90*, 710-730.

MacKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. (2011). Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly*, *35*, 293-334.

McCulloch, M. C., & Turban, D. B. (2007). Using person-organization fit to select employees for high-turnover jobs. *International Journal of Selection and Assessment*, *15*, 63-71.

Muchinsky, P. M., & Monahan, C. J. (1987). What is person-environment congruence? Supplementary versus complementary models of fit. *Journal of Vocational Behavior*, *31*, 268-277.

Nunnally, J. C. (1976). *Psychometric theory*. New York: McGraw Hill.

Oh, I. S., Guay, R. P., Kim, K., Harold, C. M., Lee, J. H., Heo, C. G., & Shin, K. H. (2014). Fit happens globally: A meta-analytic comparison of the relationships of person-environment fit dimensions with work attitudes and performance across East Asia, Europe, and North America. *Personnel Psychology*, *67*, 99-152.

Ostroff, C., Shin, Y., & Kinicki, A. J. (2005). Multiple perspectives of congruence: Relationships between value congruence and employee attitudes. *Journal of Organizational Behavior*, *26*, 591-623.

Pervin, L. A. (1968). Performance and satisfaction as a function of individual-environment fit. *Psychological Bulletin*, *69*, 56-68.

Piasentin, K. A., & Chapman, D. S. (2006). Subjective person-organization fit: Bridging the gap between conceptualization and measurement. *Journal of Vocational Behavior*, *69*, 202-221.

Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based

- self-esteem: Construct definition, measurement, and validation. *Academy of Management Journal*, 32, 622-648.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R., & Fetter, R. (1990). Transformational leader behaviors and their effects of followers' trust in leader, satisfaction and organizational citizenship behaviors. *The Leadership Quarterly*, 4, 107-142.
- Ravlin, E. C., & Meglino, B. M. (1987). Effect of values on perception and decision making: A study of alternative work value measures. *Journal of Applied Psychology*, 72, 666-673.
- Riordan, C. M. (2000). Relational demography within groups: Past developments, contradictions, and new directions. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resource management* (Vol. 19, pp. 131-173). Greenwich, CT: JAI Press.
- Saks, A. M., & Ashforth, B. E. (1997). A longitudinal investigation of the relationships between job information sources, applicant perceptions of fit, and work outcomes. *Personnel Psychology*, 50, 395-426.
- Schaubroeck, J., & Lam, S. S. K. (2002). How similarity to peers and supervisor influences organizational advancement in different cultures. *Academy of Management Journal*, 45, 1120-1136.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40, 437-454.
- Seong, J. Y., & Kristof-Brown, A. L. (2012). Testing multidimensional models of person-group fit. *Journal of Managerial Psychology*, 27, 536-556.
- Seong, J. Y., Kristof-Brown, A. L., Park, W. W., Hong, D. S., & Shin, Y. (in press).

Person-group fit: Diversity antecedents, proximal outcomes, and performance at the group level. *Journal of Management*.

Shaw, M. E. (1981). *Group dynamics: The psychology of small group behavior* (3rd ed.). New York: McGraw-Hill.

Tang, T. L. P., & Sutarso, T. (2013). Falling or not falling into temptation? Multiple faces of temptation, monetary intelligence, and unethical intentions across gender. *Journal of Business Ethics*, *116*, 529-552.

Turban, D. B., & Jones, A. P. (1988). Supervisor-subordinate similarity: Types, effects, and mechanisms. *Journal of Applied Psychology*, *73*, 228-234.

Vancouver, J. B., & Schmitt, N. W. (1991). An exploratory examination of person-organization fit: Organizational goal congruence. *Personnel Psychology*, *44*, 333-352.

Van Dyne, L. V., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, *41*, 108-119.

Van Vianen, A. E. M. (2000). Person-organization fit: The match between newcomers' and recruiters' preferences for organizational cultures. *Personnel Psychology*, *53*, 113-149.

Wang, M., Zhan, Y., Mccune, E., & Truxillo, D. (2011). Understanding newcomers' adaptability and work-related outcomes: Testing the mediating roles of perceived P-E fit variables. *Personnel Psychology*, *64*, 163-189.

Wheeler, A. R., Buckley, M. R., Halbesleben, J. R. B., Brouer, R. L., & Ferris, G. R. (2005). "The elusive criterion of fit" revisited: Toward an integrative theory of multidimensional fit. *Research in Personnel and Human Resources Management*, *24*, 265-304.

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TABLE 1
Means, Standard Deviations, Reliabilities, and Intercorrelations among Study Variables in Study 1

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Gender (Mgr)	.40	.49																
2. Age (Mgr)	38.45	7.57	-.21															
3. Gender (Ee)	.37	.48	.30*	-.26*														
4. Age (Ee)	30.97	7.10	-.06	.38**	-.04													
5. PJFS	4.59	.84	.30*	-.18	.08	.14**	(.84)											
6. POFS	4.31	.89	.39**	-.19	.14*	.09	.38**	(.91)										
7. PGFS	4.52	.69	.29*	-.20	.12*	-.03	.53**	.68**	(.89)									
8. PSFS	3.97	.98	.33**	-.35**	.06	.08	.32**	.60**	.56**	(.90)								
9. C&D-PJ fit	4.44	.91	.31*	-.06	.07	.19**	.79**	.40**	.49**	.32**	(.88)							
10. C&D-PO fit	4.15	.94	.26*	-.10	.10	.14*	.35**	.76**	.57**	.59**	.39**	(.94)						
11. C&D-Adapted PG fit	4.43	.82	.18	-.19	.06	.07	.49**	.44**	.68**	.44**	.45**	.46**	(.92)					
12. C&D-Adapted PS fit	4.20	.98	.37**	-.17	.02	.15**	.36**	.55**	.52**	.75**	.36**	.55**	.44**	(.92)				
13. In-role behavior	5.03	.82	.15	-.27*	.11*	.02	.41**	.25**	.42**	.16**	.28**	.17**	.38**	.21**	(.92)			
14. Job satisfaction	4.39	.84	.21	-.16	.12*	.12*	.57**	.51**	.57**	.41**	.56**	.48**	.56**	.43**	.34**	(.82)		
15. Intent to quit	3.94	1.16	-.26*	.01	-.15**	-.19**	-.36**	-.42**	-.35**	-.32**	-.43**	-.37**	-.26**	-.29**	-.11*	-.59**	(.83)	
16. OCB	4.81	.59	.20	-.18	.16**	.15**	.44**	.43**	.51**	.31**	.34**	.33**	.41**	.32**	.60**	.44**	-.26**	(.92)

Note. Mgr = Manager; Ee = Employee; PJFS = Person-Job Fit Scale; POFS = Person-Organization Fit Scale; PGFS = Person-Group Fit Scale; PSFS = Person-Supervisor Fit Scale; C&D = Cable and DeRue (2002); PJ fit = Person-Job fit; PG fit = Person-Group fit; PO fit = Person-Organization fit; PS fit = Person-Supervisor fit; OCB = Organizational Citizenship Behavior.

* $p < .05$ ** $p < .01$.

TABLE 2
Means, Standard Deviations, Reliabilities, and Intercorrelations among Study Variables in Study 2

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1. Gender (Mgr)	.59	.50										
2. Age (Mgr)	36.40	8.53	.12									
3. Gender (Ee)	.36	.48	.29**	.03								
4. Age (Ee)	30.00	8.63	.22**	.35**	.21**							
5. PJFS	4.78	.95	.05	.11	.08	.18*	(.89)					
6. POFS	6.85	1.42	.20**	-.02	.08	.12	.60**	(.93)				
7. PGFS	4.51	.81	.28**	-.04	.15	.04	.61**	.86**	(.91)			
8. PSFS	4.04	1.13	.22**	-.14*	.11	.02	.36**	.57**	.62**	(.91)		
9. Job satisfaction	4.73	.90	.07	-.05	-.03	.06	.60**	.66**	.64**	.49**	(.82)	
10. Job performance	8.49	1.75	.17*	-.29**	.13	-.05	.24**	.20**	.25**	.35**	.20**	(.93)

Note. Mgr = Manager; Ee = Employee; PJFS = Person-Job Fit Scale; POFS = Person-Organization Fit Scale; PGFS = Person-Group Fit Scale; PSFS = Person-Supervisor Fit Scale.

* $p < .05$ ** $p < .01$.

TABLE 3
Summary of Results by the PPEFS Measures and Analysis Stage across Studies

Analysis Stage \ Fit Measure	PJFS	POFS	PGFS	PSFS
Subscale name	PJFS	POFS-Values POFS-Goals	PGFS-Values PGFS-Goals PGFS-Attributes	PSFS
Content dimension	KSAs, personality, interests, and job characteristics	Values and goals	Values, goals, and attributes	Values, personality, work style, lifestyle, and leadership style
Number of items	4	Values: 4 Goals: 3	Values: 4 Goals: 3 Attributes: 3	5
Analyses to test fit measures individually				
Reliability	.84	.91	.89	.90
Convergent validity	Supported	Supported	Supported	Supported
Discriminant validity	Largely supported	Largely supported	Largely supported	Supported
Criterion-related validity	Supported	Supported	Supported	Supported
Usefulness	Supported	Supported	Supported	Supported
Analyses to test fit measures simultaneously				
Relations among fit measures	Related but distinct			
Relative importance of the fit measures	Different fit measures explained the greatest amount of variance in different outcomes			
Function of the fit measures	Superordinate			

Note. PPEFS = Perceived Person-Environment Fit Scale; PJFS = Person-Job Fit Scale; POFS = Person-Organization Fit Scale; PGFS = Person-Group Fit Scale; PSFS = Person-Supervisor Fit Scale; KSAs = Knowledge, Skills, and Abilities.

TABLE 4
Results of Confirmatory Factor Analysis, Convergent and Discriminant Validity, and Function of PPEFS

Model	Description	χ^2	<i>df</i>	χ^2/df	RMSEA	CFI	IFI
Confirmatory Factor Analysis							
Model 1	PJFS one-factor model	3.23	2	1.62	0.04	1.00	1.00
Model 2	PJFS two-factor model ^a	2.26	1	2.26	0.06	1.00	1.00
Model 3	POFS second-order model ^b	30.83**	13	2.37	0.07	0.99	0.99
Model 4	POFS one-factor model	323.31	14	23.09	0.26	0.81	0.81
Model 5	PGFS second-order model ^c	87.52**	32	2.74	0.07	0.98	0.98
Model 6	PGFS one-factor model	590.75	35	16.88	0.22	0.85	0.85
Model 7	PSFS one-factor model	6.50	5	1.30	0.03	1.00	1.00
Convergent and Discriminant Validity							
Model 8	Second-order model ^d	1220.86	288	4.24	0.10	0.94	0.94
Model 9	Four-factor model ^e	1450.02	293	4.95	0.11	0.94	0.94
Model 10	One-factor model	3247.65	299	10.86	0.17	0.87	0.87
Function of PPEFS							
Model 11	Superordinate model	6455.73**	1816	3.55	0.09	0.92	0.92
Model 12	Aggregate model	9332.83	1810	5.16	0.11	0.89	0.89
Model 13	Distinct model	8992.90	1802	4.99	0.11	0.89	0.89

Note. n = 328. PPEFS = Perceived Person-Environment Fit Scale; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; IFI = Incremental Fit Index; PJFS = Person-Job Fit Scale; POFS = Person-Organization Fit Scale; PGFS = Person-Group Fit Scale; PSFS = Person-Supervisor Fit Scale. ^a The two factors contained DA fit and NS fit. ^b The two subscales (POFS-Values and POFS-Goals) were specified as manifestations of a more general umbrella construct: PO fit. ^c The three subscales (PGFS-Values, PGFS-Goals, and PGFS-Attributes) were specified as manifestations of a more general umbrella construct: PG fit. ^d

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The second order contained the four PPEFS measures (i.e., PJFS, POFS, PGFS, and PSFS) and the first order included two subscales of POFS and three subscales of PGFS. ^c Removed the first-order subscales.

** $p < .01$.

TABLE 5
Results of Relative Weight Analysis (RWA) of the PPEFS on Outcomes Variables^a

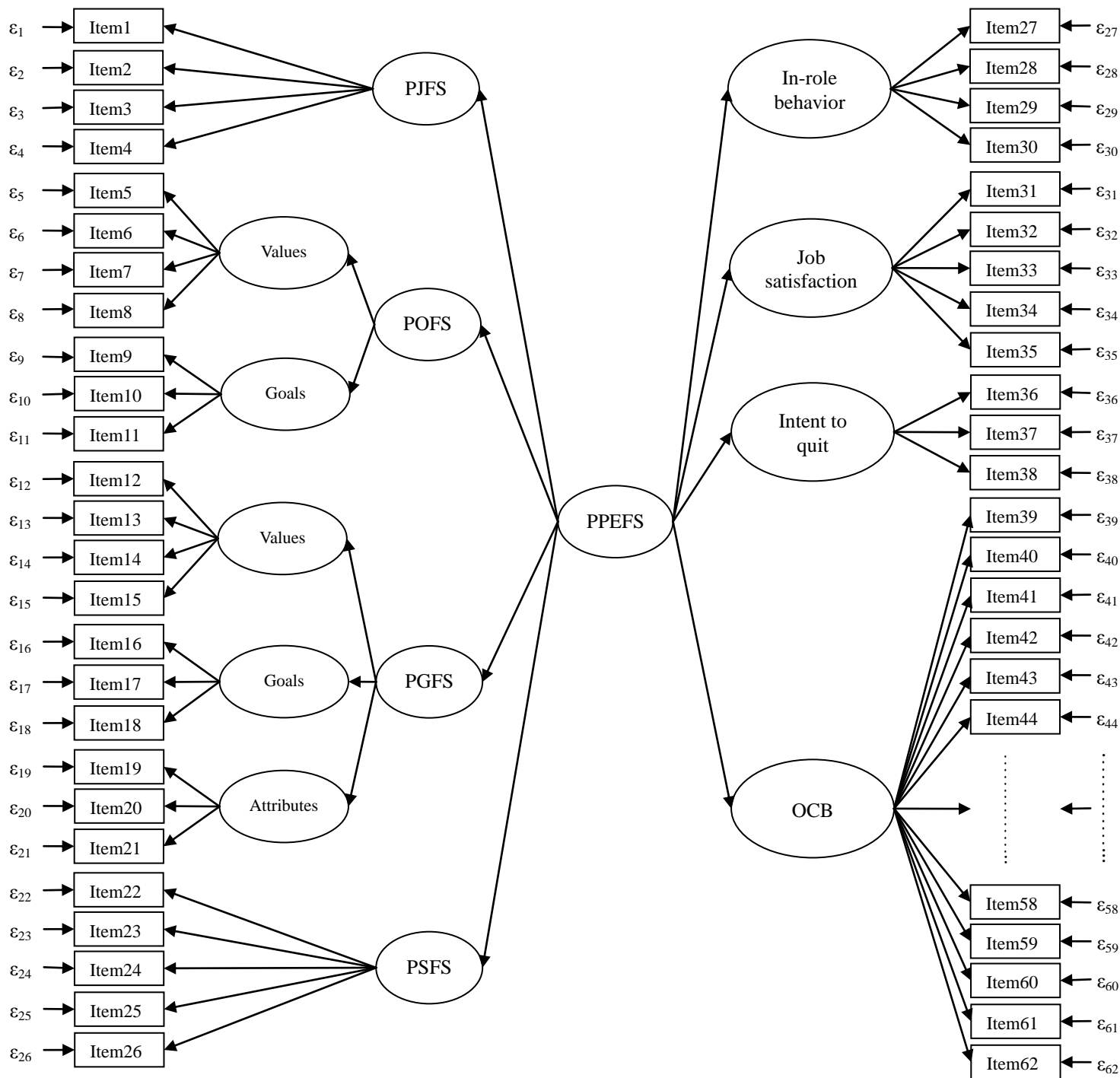
	In-role behavior ^b		Job satisfaction		Intent to quit		OCB	
	RW	%RW	RW	%RW	RW	%RW	RW	%RW
PJFS	.08**	40%	.18**	41%	.06**	30%	.06**	24%
POFS	.02*	10%	.09**	20%	.07**	35%	.06**	24%
PGFS	.09**	45%	.12**	27%	.03	15%	.11**	44%
PSFS	.01	5%	.05**	12%	.04	20%	.02*	8%
Total R^{2c}	.20		.44		.20		.25	

Note. PPEFS = Perceived Person-Environment Fit Scale; PJFS = Person-Job Fit Scale; POFS = Person-Organization Fit Scale; PGFS = Person-Group Fit Scale; PSFS = Person-Supervisor Fit Scale; OCB = Organizational Citizenship Behavior; RW = Relative Weights in R^2 Form (Johnson, 2000); %RW = Relative Weights in Percentage Form (calculated by dividing individual relative weights by the total R^2 and multiplying by 100). ^a We partialled out the effects of control variables from each predictor (i.e., fit measure) following the strategy recommended in LeBreton, Tonidandel, and Krasikova (2013). To remove the effects of control variables from outcomes, we then regressed each outcome on the residualized predictors and the control variables. Control variables are employees' age, gender, education, and tenure. ^b Manager-reported measure. ^c R^2 summed across the four fit measures.

* $p < .05$ ** $p < .01$.

FIGURE 1

A Model of Superordinate PPEFS and Outcome Variables



Note. PPEFS = Perceived Person-Environment Fit Scale; PJFS = Person-Job Fit Scale; POFS = Person-Organization Fit Scale; PGFS = Person-Group Fit Scale; PSFS = Person-Supervisor Fit Scale; OCB = Organizational Citizenship Behavior. The aggregate model was identical to the superordinate model except the arrows pointed from the four fit measures to PPEFS.

APPENDIX

Final Items of the Perceived Person-Environment Fit Scale (PPEFS)

Person-Job Fit Scale (PJFS)

1. How would you describe the match between your professional skills, knowledge, and abilities and those required by the job?
2. How would you describe the match between your personality traits (e.g., extrovert vs. introvert, agreeable vs. disagreeable, and dependable vs. undependable) and those required by the job?
3. How would you describe the match between your interests (e.g., social vs. unsocial, artistic vs. inartistic, and conventional vs. unconventional) and those you desire for a job?
4. How would you describe the match between the characteristics of your current job (e.g., autonomy, importance, and skill variety) and those you desire for a job?

Person-Organization Fit Scale (POFS)

POFS-Values

How would you describe the match between your emphasis and your organization's emphasis on the following values?

1. honesty
2. achievement
3. fairness
4. helping others

POFS-Goals

How would you describe the match between your goals and your organization's goals on the following dimensions?

5. reward
6. the amount of effort expected
7. competition with other organizations

Person-Group Fit Scale (PGFS)

PGFS-Values

How would you describe the match between your emphasis and your group's emphasis on the following values?

1. honesty
2. achievement

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3. fairness
4. helping others

PGFS-Goals

How would you describe the match between your goals and your group's goals on the following dimensions?

5. reward
6. the amount of effort expected
7. competition with other groups

PGFS-Attributes

How would you describe the match between you and your group members on the following characteristics?

8. personality
9. work style
10. lifestyle

Person-Supervisor Fit Scale (PSFS)

1. How would you describe the match between the things you value in life and the things your supervisor values?
2. How would you describe the match between your personality and your supervisor's personality?
3. How would you describe the match between your work style and your supervisor's work style?
4. How would you describe the match between your lifestyle and your supervisor's lifestyle?
5. How would you describe the match between your supervisor's leadership style and the leadership style you desire?

Note. All items used a 7-point scale, 1 meaning "no match" and 7 meaning "complete match."