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Person-environment fit is a formative construct☆

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ABSTRACT

This study explores the concept of person-environment (PE) fit. There has been a push recently to move beyond unidimensional definitions of fit and to consider fit at a variety of dimensions and levels of the environment simultaneously, which has led to questions about how this multidimensional construct should be conceptualized. Specifically, is fit on dimensions and levels a manifestation of overall fit (i.e., a reflective model) or does fit at the dimensions and levels combine to collectively define overall fit (i.e., a formative model)? This study focused on two main research questions. First, is PE fit a formative or reflective construct? Second, how does specifying PE fit as formative or reflective affect the prediction of outcomes? Six hundred and eighty-eight employees from a variety of occupations and organizations rated their fit with various aspects of their work environment and several attitudinal and behavioral outcomes. The results supported the hypotheses that PE fit should be conceptualized as a formative construct. The results also suggest that formative models slightly improve the prediction of outcomes. This suggests that the dimensions and levels of fit combine to form employees' perceptions of fit. Limitations, directions for future research, and implications for theory and practice are discussed.

1. The formative nature of person-environment fit

The concept of fit between people and their work environments is pervasive in industrial/organizational psychology. Saks and Ashforth (1997) argued that this topic is "a cornerstone of industrial/organizational psychology and human resources management," (p. 395) and Schneider (2001) asserted that "the concept of person-environment fit is so pervasive as to be one of, if not the, dominant conceptual forces in the field" (p. 142). The idea of fit is the basis of employee selection theory, in which people are selected on the basis of how well their abilities match the demands of the job (Kristof-Brown & Guay, 2011). Fit is also an important component of employee recruitment; job seekers consider their likely fit with organizations and jobs when deciding between job offers (e.g., Cable & Judge, 1996). Further, post-entry fit is a strong predictor of various job attitudes such as job satisfaction and organizational commitment and intentions to leave organizations (Kristof-Brown, Zimmerman, & Johnson, 2005).

Person-environment (PE) fit refers to the compatibility between individual and work environment characteristics (Kristof-Brown & Guay, 2011). PE fit has been studied at various levels of the work environment: vocation, organization, group, job, and person (e.g., supervisor or recruiter). We have begun to learn a great deal about how these levels of fit relate to outcomes. Meta-analysis suggests that attitudes about various aspects of the work environment are most strongly related to the corresponding level of

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fit (e.g., job satisfaction is most strongly predicted by person-job fit; Kristof-Brown et al., 2005). Although the various levels of fit seem to explain unique variance in outcomes (e.g., Kristof-Brown, 2000), they are strongly intercorrelated. Meta-analytic results by Kristof-Brown et al. (2005) suggest that the relationships among the levels of fit range from 0.37 to 0.72. This has led to the conclusion that overall PE fit should be a strong predictor of work-related outcomes and that one way to test this would be to model a higher-order latent construct (Kristof-Brown & Guay, 2011).

Further, each level of PE fit is composed of several content dimensions. Fit is operationalized based on specific characteristics of the person and environment, such as values, demands-abilities (the degree to which a person's abilities meet the demands of the environment), and needs-supplies (the degree to which an environment meets a person's needs; Edwards & Shipp, 2007). Although it has been suggested that the most promise lies in using multidimensional measures of fit (e.g., Kristof-Brown & Jansen, 2007), most measures used in PE fit research are unidimensional. This is especially common for subjective measures of person-organization (PO) fit (Piasentin & Chapman, 2006), which is typically assessed through values or personality-culture congruence. However, meta-analytic results suggest that relationships between fit and outcomes may differ based on which dimensions are measured. For instance, Kristof-Brown et al. (2005) found an estimated true score correlation of 0.44 between job satisfaction and PO fit; however, the correlations differed widely when PO fit was measured using needs-supplies ($\rho = 0.46$), values ($\rho = 0.51$), personality ($\rho = 0.08$), and goals ($\rho = 0.31$). This suggests that the dimensions that are used to measure fit can dramatically affect the conclusions that are drawn. The tendency to study the levels of PE fit in isolation using unidimensional measures provides an incomplete picture of how people experience fit at work.

Thus, there has been a recent push to study multiple levels and dimensions of fit simultaneously in order to provide a more holistic understanding of PE fit (e.g., Vogel & Feldman, 2009). In terms of measurement, there have been thrusts to use multidimensional measures of fit (e.g., Kristof-Brown & Jansen, 2007). This has several implications, both for research and practice. If researchers begin studying various levels and dimensions of fit simultaneously, it will raise questions as to how to properly model fit, especially if structural equation modeling is used. Improperly specifying models could lead to confusion about the nature of the construct and lead to inaccurate conclusions. The goal of this study is to address these implications by exploring the proper measurement and conceptualization of the construct of PE fit.

When studying various levels of fit and overall PE fit, it is important to think carefully about how the construct should be conceptualized and what conceptual model should be applied. In order to model overall PE fit, Kristof-Brown and Guay (2011) suggested using structural equation modeling in which overall fit is modeled as a higher-order construct. This would allow researchers to study how the various dimensions and levels of fit combine to predict overall fit with the work environment and subsequent outcomes. Adopting this strategy, however, raises questions about how the data should be modeled. In particular, some researchers (e.g., MacKenzie, Podsakoff, & Jarvis, 2005) have suggested that the model that is used for most latent constructs is not appropriate for some constructs. Typically, dimensions of a higher-order construct are presumed to be reflections of the construct. That is, responses for items that measure the dimensions are caused by that construct (i.e., the dimensions are reflections of that construct). This is an appropriate model for many constructs. If the indicators are manifestations of the construct and are conceptually interchangeable, reflective measurement will be an appropriate strategy.

However, reflective-indicator models may not be appropriate for some constructs. Instead, using a formative-indicator model, in which causality flows from the dimensions to the higher-order construct, may be better suited for some constructs. For instance, a formative model would be more appropriate for studying socioeconomic status (SES); the indicators, such as income and education, collectively define SES. Because SES does not cause income or educational attainment, a reflective model would not be appropriate. In formative models, the dimensions are the causes of the higher-order constructs. Improper model selection can result in inaccurate unstandardized structural parameter estimates and lead to Type I or Type II errors of inference. Using Monte Carlo simulations, MacKenzie et al. (2005) found that measurement model misspecification can inflate parameter estimates by as much as 400% or decrease them by as much as 80%, potentially leading to both Type I and Type II errors.

Although there are few examples of explicit tests of the appropriateness of reflective and formative models, job satisfaction gives evidence that this question deserves attention from organizational researchers. Job satisfaction is often conceptualized and measured in terms of facets. For example, the Job Satisfaction Survey (Spector, 1985) includes nine facets (pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication), which can be used to compute a total job satisfaction score (Spector, 1997). When job satisfaction is conceptualized and measured in this manner, several important considerations become apparent: (a) the computation of a total score assumes that satisfaction with various aspects of the job combine to form overall job satisfaction; (b) the facets capture different parts of the construct domain, such as the nature of the work and supervision; (c) the facets do not all appear to covary (in a recent validation of the Job Descriptive Index, the correlations among the facets ranged from 0.07 to 0.41; McIntyre & McIntyre, 2010); and (d) the facets may have different antecedents and consequences. Taken together, these characteristics suggest that facet job satisfaction (and perhaps many other constructs) fit the criteria for formative constructs, which we discuss next.

1.1. Reflective vs. formative models

MacKenzie et al. (2005) argue that theory should drive the decision about whether constructs should be modeled as formative or reflective. They outlined several guidelines that can be used to distinguish between model types, which we summarize below.

1.1.1. Are the dimensions defining characteristics of the construct or manifestations of it?

This distinction relates to the direction of causality between the dimensions and the construct. Only when the dimensions are