Investigating the Influences of Core Self-Evaluations, Job Autonomy, and Intrinsic Motivation on In-Role Job Performance

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This study investigates the effects of core self-evaluations, job autonomy, and intrinsic motivation on employees’ perceptions of their in-role job performance, based on a cross-sectional survey of 283 employees in a Fortune Global 100 company in Korea. The results suggest that employees perceived higher in-role job performance when they had higher core self-evaluations and intrinsic motivation. Intrinsic motivation partially mediated the relationship between core self-evaluations and job performance, and it also fully mediated the relationship from job autonomy to job performance. Thus, to increase motivation and job performance, managers and HRD professionals need to create an integrated strategy incorporating enhancement of selection methods, elements of job redesign, and interpersonal developmental practices such as coaching and mentoring.

Performance has been one of the most extensively researched concepts in the field of human resource development (HRD). Yet it was not until the late 1980s that HRD began to consider performance improvement as an underlying component of the HRD definition (Weinberger, 1998). In the 1990s critics of the performance paradigm of HRD viewed performance as a means to control and possibly deny “a person’s fundamental and inherent agency and self-determination” (Barrie & Pace, 1998, p. 295), achieving higher performance is a requirement of every organization (Swanson, 1999). Holton (2000) also stated that performance-oriented HRD advocates can also fully hold notions of empowerment, individual learning and growth, and human development (Holton, 2002). HRD can enhance performance while increasing the value and potential of the individual employee, because performance is a desired consequence of human beings’
freely chosen behavior (Swanson & Holton, 2009). These long-held beliefs about performance have encouraged HRD scholars to be interested in the antecedents of individual job performance such as employees’ self-concepts, job context, and intrinsic motivation.

Organizational scholars have long been interested in exploring the effect of an individual’s self-concepts on performance. One recent approach focuses on a broad personality trait termed core self-evaluations (Judge, Locke, & Durham, 1997), which captures a fundamental aspect of the self, as discussed by Rosenberg (1979). Core self-evaluations is a higher-order concept of an individual’s self-evaluation of his or her personal characteristics, incorporating four core individual traits that are assumed to influence various work outcomes: self-esteem, generalized self-efficacy, locus of control, and emotional stability (Judge et al., 1997; Judge, Erez, & Bono, 2002). Accumulating evidence suggests that core self-evaluations have been linked to job satisfaction, motivation, and performance (e.g., Bowling, Wang, Tang, & Kennedy, 2010; DeCarlo & Agarwal, 1999; Erez & Judge, 2001; Grant & Wrzesniewski, 2010; Judge & Bono, 2001; Judge, Locke, Durham, & Kluger, 1998).

Several job aspects influence an individual’s work outcomes. One of the most important aspects is job autonomy, which refers to the degree of discretion employees have over important decisions in their work (Hackman & Oldham, 1980). This aspect has been identified as a significant feature of work design for employee outcomes. Studies have suggested that giving autonomy to individuals is expected to encourage higher motivation, satisfaction, and performance in a variety of settings (e.g., Barrick & Mount, 1993; Fried, Hollenbeck, Slowik, Tieg, & Ben-David, 1999; Garcia & Pintrich, 1996; Langfred & Moye, 2004; Troyer, Mueller, & Osinsky, 2000; Van Yperen & Hagedoorn, 2003).

The current study examines how core self-evaluations and job autonomy relate to job performance via intrinsic motivation. Intrinsic motivation is the motivation to perform an activity for itself, in order to experience the pleasure and satisfaction inherent in the activity (Deci, Connell, & Ryan, 1989). According to the Hackman and Oldham (1976) job characteristic model, autonomy, as a set of job characteristics, leads to increased intrinsic motivation. Drawing from job design studies, motivation has been a commonly accepted causal mechanism relating autonomy to performance (Langfred & Moye, 2004). Bono and Judge (2003) also suggest that one application of core self-evaluation theory has been in the area of motivation and job performance. Taken together, we propose that job performance may be influenced by the combination of core individual traits, job autonomy, and intrinsic motivation as the crucial mechanism for predicting performance.

**Problem Statement and Research Purpose**

There was a research gap that drew our attention. Although substantial progress has been made in the previous literature on job performance, little is
known about the joint effects of the dispositional characteristics of employees and the degree of their self-determination on job performance through motivational mechanisms. Specifically, it is difficult to find previous empirical research that comprehensively examined the influences of these two antecedents—employees’ personality factor and autonomy aspect of job itself—on in-role job performance via their “intrinsic” motivation.

In addition, much of the extant research on the role of personality at work tends to be limited to the Big Five personality traits of neuroticism, extraversion, agreeableness, conscientiousness, and openness to experience (e.g., Barrick & Mount, 1993; Caligiuri, 2000; George & Zhou, 2001; Hurtz & Donovan, 2000; Tett, Jackson, & Rothstein, 2006). Thus, the personality traits outside of the Big Five taxonomy have received relatively less attention within the organizational sciences (Ng, Sorensen, & Eby, 2006). In this study we investigated the effect of personality on job performance with the use of the relatively recent concept of core self-evaluations instead of the Big Five personality dimensions. However, although each of the four lower-order traits of core self-evaluations has been examined separately across cultures, very few studies have used a Korean sample to examine core self-evaluations as a predictor of in-role job performance via intrinsic motivation.

Based on the research gap above, the purpose of the current study is to investigate the influences of core self-evaluations, job autonomy, and intrinsic motivation on employees’ in-role job performance in the Korean business context. Our focus was on the facets of self and on the job itself in order to explore the mechanisms of how performance is gained. Therefore, our conceptual model encompasses core self-evaluations as an individual’s self-concept as well as job autonomy, which refers to the extent to which the job enables an individual to experience freedom and independence (Hackman & Oldham, 1976). In addition, we considered intrinsic motivation derived from the individual’s positive reaction to qualities of the task itself (Amabile, 1996). Finally, in-role job performance based on activities related to formal tasks, duties, and responsibilities was included as the performance variable (Williams & Anderson, 1991). The research question is: “To what extent do core self-evaluations, job autonomy, and intrinsic motivation affect employees’ in-role job performance?”

Conceptual Framework and Hypotheses

In this section, we review the constructs of core self-evaluations, job autonomy, intrinsic motivation, and in-role job performance, as well as the relationships among these constructs. Five hypotheses were derived based on the comprehensive literature review.

Relationships of Core Self-Evaluations to Intrinsic Motivation and Job Performance. According to Judge et al. (1997), the term core self-evaluations refers to the fundamental beliefs that individuals hold about themselves and their self-worths, consisting of four highly correlated personality traits: self-esteem,
generalized self-efficacy, locus of control, and emotional stability. Judge, Erez, Bono, and Thoresen (2003) argued that these four core traits result from a broad positive self-regard:

Because core self-evaluations is a broad, latent trait that is the common source of the four specific traits, it is the psychological mechanism that causes these individual traits to be correlated. Because an individual who scores high on core self-evaluations is someone who is well adjusted, positive, self-confident, efficacious, and believes in his or her own agency, it is this broad core that is then manifested in high levels of self-esteem, emotional stability, and general self-efficacy, and an internal locus of control. (p. 304)

Judge and colleagues (1997, 1998, 2003) also viewed core self-evaluations as a unidimensional latent construct that causes individuals to consider themselves as having higher self-esteem, higher generalized self-efficacy, higher emotional stability, and an internal locus of control. Thus, people with high core self-evaluations hold more positive self-concepts than people with low core self-evaluations (Judge et al., 1998).

Although the construct of core self-evaluations was first introduced as a predictor of employees’ job satisfaction (Judge et al., 1997), much of the existing research has investigated core self-evaluations as predictors of work-related attitudes and behaviors (Bowling et al., 2010; Grant & Wrzesniewski, 2010; Judge, 2009). In research, core self-evaluations is a widely adopted construct for studies on employee motivation and performance (Bono & Judge, 2003; Erez & Judge, 2001; Judge & Bono, 2001). The bottom line of these studies is that individuals with higher core self-evaluations are more likely to have higher motivation, and they can ultimately achieve improved performance.

Core self-evaluations—Intrinsic motivation. In this study, we examined the relationship between core self-evaluations and intrinsic motivation. Intrinsic motivation is described as “any motivation that arises from the individual’s positive reaction to qualities of the task itself; this reaction can be experienced as interest, involvement, curiosity, satisfaction, or positive challenge” (Amabile, 1996, p. 115). This concept refers to the state where organizational members are motivated and committed by the task itself and their own enthusiasm for the task (Amabile, 1988). In other words, they are not motivated so much by the external outcome, which refers to the desire to expend effort to gain outcomes external to the work itself (Amabile, 1993). Deci and Ryan (1985) note that the critical component of intrinsic motivation is self-determination. Individuals who are intrinsically motivated tend to be driven by inherent interest in the work itself and enjoyment, and thus they feel naturally drawn toward carrying out their work. Here, the decision to expend effort is self-determined (Grant, 2008; Kehr, 2004).

People having high self-esteem may believe that they are capable, significant, and worthy (Pierce & Gardner, 2004), and people’s beliefs about their
capabilities to perform a task will impact their motivation to seek out or avoid the task (Bandura, 1997). Bandura (1997) further suggested that the higher the perceived self-efficacy, the more challenging the activities that individuals choose. Ng et al. (2006) also argued that locus of control may be viewed as a trait that relates to individuals’ intrinsic motivation. Therefore, people with high core self-evaluations perceived their jobs as providing more intrinsic characteristics (Judge, Bono, & Locke, 2000). In line with this theorizing, numerous studies have reported that a positive relationship between core self-evaluations and motivation in employees’ self-concepts may affect their decisions to engage in and perform their job activities (Bono & Colbert, 2005; Erez & Judge, 2001; Hiller & Hambrick, 2005; Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005).

**HYPOTHESIS 1:** Core self-evaluations will be positively related to intrinsic motivation.

**Core self-evaluations—In-role performance.** We also examined the relationship between core self-evaluations and in-role job performance. The concept of in-role job performance is based on activities related to formal tasks, duties, and responsibilities that are illustrated in a job description (Williams & Anderson, 1991), whereas extrarole performance is based on behaviors that are also critical for achieving performance, but discretionary in nature, such as acting politely or helping others (Moorman, Niehoff, & Organ, 1993; Organ, 1988).

**HYPOTHESIS 2:** Core self-evaluations will be positively related to in-role job performance.

Based on the evidence from our literature review, it is likely that individuals’ self-esteem, generalized self-efficacy, locus of control, and emotional stability play a significant role in shaping employees’ intrinsic motivation and in-role job performance. It appears that core self-evaluation can be viewed as a personality trait that predicts employees’ intrinsic motivation and more distally, in-role job performance.

**Relationships of Job Autonomy to Intrinsic Motivation and Job Performance.** In addition to employees’ self-concepts, we considered the degree of self-determination at work, which is job autonomy. The concept of job autonomy has been formulated and validated from the 1970s. In their monumental studies, Hackman and Oldham (1975, 1980) identified five characteristics of jobs (variety, identity, autonomy, significance, and feedback) that motivate employees to achieve better work-related outcomes. Among the five job characteristics, job autonomy refers to the extent to which a job allows discretion, freedom, and independence of employees to perform tasks in their jobs (Hackman & Oldham, 1975, 1980; Oldham & Cummings, 1996). Employees with job autonomy determine how they do their jobs themselves such as the timing, methods, procedures, and overall decision making of their tasks (Hackman & Oldham, 1975, 1980; Parker, Axtell, & Turner, 2001). The concept
of job autonomy has been clarified by numerous researchers as a critical antecedent of outcome variables such as job satisfaction and motivation (Hackman & Oldham, 1980; Parker & Wall, 1998).

**Job autonomy—Intrinsic motivation.** More specifically, Hackman and Oldham (1980) argued that employees can have higher motivation in autonomously designed jobs than in regulated jobs. Because job autonomy is an important element of how a job is designed to motivate employees, the concept naturally relates to intrinsic motivation, which is the motivation from an employee's positive reaction to the task itself (Amabile, 1996). As discussed in the previous section, one of the essential components of intrinsic motivation is self-determination (Deci & Ryan, 1985). Therefore, job autonomy, as a factor of job design, can provide a desirable work context where employees motivate themselves based on the qualities of the job activity itself. In this regard, job autonomy has been widely considered a critical contributor to employees' motivation and creative job performance in the workplace (Amabile, 1988; Hackman & Oldham, 1980; Kanter, 1988; Shalley, Zhou, & Oldham, 2004; West & Farr, 1990).

**HYPOTHESIS 3:** *Job autonomy will be positively related to intrinsic motivation.*

**Job autonomy—In-role job performance.** We also identified the relationship between job autonomy and performance. Based on the theoretical linkage between job autonomy and job performance discussed in Hackman and Oldham (1975, 1980), numerous studies have integrated the concept of job autonomy to investigate its influence on performance since the late 1970s, but the findings have been mixed. In some studies, the direct impact of job autonomy on performance was somewhat small or inconsistent (e.g., Fried & Ferris, 1987; Morgeson & Campion, 2003). Furthermore, several studies (e.g., Gellatly & Irving, 2001; George & Jones, 1997; Morrison, 1994) suggested that job autonomy is more closely related to extrarole (contextual) performance than in-role performance in that employees in less-autonomous work environments tend to focus more on prescribed task requirements. However, other research has shown a significant relationship between job autonomy and job performance (e.g., Dodd & Ganster, 1996; Eisenberger, Rhoades, & Cameron, 1999; Tyagi, 1985). For example, Tyagi (1985) identified a meaningful impact of job autonomy on the work performance of salespersons, and Eisenberger et al. (1999) also identified a positive relationship between employees' perceived self-determination and job performance. In spite of the mixed findings, we theorize that when autonomy increases on the job, employees experience improved flexibility to decide how to perform their own tasks, and as a result, they demonstrate better job performance (Barrick & Mount, 1993; Fried et al., 1999; Troyer et al., 2000). Therefore, we hypothesized as follows:

**HYPOTHESIS 4:** *Job autonomy will be positively related to in-role job performance.*
Relationship of Intrinsic Motivation to Job Performance. Previous research has suggested a consistent positive relationship between intrinsic motivation and job performance (Grant, 2008; Karatepe & Tekinkus, 2006; Lawler & Hall, 1970; Tierney, Farmer, & Graen, 1999). When individuals’ performance in an organization is based on intrinsic motivation, they tend to be highly engaged in the task itself, and as a result, their performance improves. According to Grant (2008), when people are intrinsically motivated, they tend to be process focused and thus, they view their task as “an end in and of itself” (p. 49). In addition, they are more concerned with performing the work itself rather than performing extra work beyond the formal job description (Grant, 2008). Accordingly, it is expected that intrinsic motivation will be positively related to in-role job performance.

HYPOTHESIS 5: Intrinsic motivation will be positively related to in-role job performance.

In summary, the conceptual framework in this study links core self-evaluations and job autonomy to in-role job performance with a partially mediating role of intrinsic motivation. Figure 1 illustrates the conceptual model of this study.

Methods

In this section, we discuss the methodological issues, including four instruments used to measure core self-evaluations, job autonomy, intrinsic motivation, and employees’ perceived in-role job performance, as well as data collection procedures and sample demographics.

Measures. We selected four instruments that can appropriately measure the constructs in our conceptual framework. All instruments have shown acceptable levels of reliability and validity in previous research. The constructs used multi-item scales that have been previously developed and used in the
United States. Therefore, the questionnaires were prepared for use in Korea using translation–back translation procedures. An English–Korean bilingual graduate student majoring in social science translated the original instruments into Korean. Then, the Korean version was again translated into English by another English–Korean bilingual translator, and the outcome was compared with the original version. During this process, the survey items were finally refined in Korean language, considering the original meanings and specific Korean wording. A 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used.

**Core self-evaluations.** This 12-item Core Self-Evaluations Scale (CSES) developed by Judge et al. (2003) is a composite of four core traits: self-esteem, generalized self-efficacy, locus of control, and emotional stability. Instead of measuring the four specific traits separately and weighting the scores, this scale is a direct and relatively brief measure of an individual's core personality. Judge et al. (2003) provided evidence of a unitary factor structure and psychometric support for this scale. In this study, we used the averaged scores for each factor. The reliability for the four averaged factors was 0.79 in this study. Sample items included “Overall, I am satisfied with myself,” and “I determine what will happen in my life.”

**Job autonomy.** Three items from the Job Diagnostic Survey (JDS) (Hackman & Oldham, 1980) were used to assess the employees' perceptions of job autonomy. This instrument was composed of 15 items: three items for each of the five job dimensions (skill variety, task identity, task significance, autonomy, and feedback). The internal reliability was 0.71 in this study. A sample item was “The job gives me considerable opportunity for independence and freedom in how I do the work.”

**Intrinsic motivation.** Tierney et al. (1999) developed a five-item measure for employees’ intrinsic motivation based on the work of Amabile (1985). The items targeted enjoyment of activities related to generating new ideas and activities. Whereas Tierney et al. (1999) reported that the internal consistency reliability was 0.74 for their study, it was 0.84 in the present study. A sample item was, “I enjoy coming up with new ideas for products.”

**In-role job performance.** We measured in-role job performance with the use of the Podsakoff and MacKenzie (1989) five-item scale. In their study, the immediate supervisor of the respondent indicated the extent to which they agreed or disagreed with five statements about the quality and quantity of the respondents’ in-role activities. The reliability coefficient was 0.85 (Janssen & Van Yperen, 2004). In the present study, we measured the participants’ perceived in-role job performance, and the reliability was 0.83. A sample item was, “This employee always completes the duties specified in the job description.”

**Data Collection and Sample Demographics.** A cross-sectional survey was used to obtain individual perceptions in this study. Because we wanted to include employees working in representative large for-profit Korean organizations, a *Fortune* Global 100 company in Korea was selected. Based on a convenience
sampling approach administered by HR managers, the paper versions of the survey questionnaires were distributed to 340 employees, and 283 were returned, giving us a final response rate of 83%.

The demographic variables included (a) gender, (b) age, (c) education level, (d) hierarchical level, (e) the type of job, and (f) the length of a leader–follower relationship. Most respondents were males (88%), in their 30s (95%), and in manager or assistant manager positions (98%). In terms of educational level, 44% of the respondents graduated from a 4-year college and 34% from graduate school. The length of the relationship with the current supervisor was evenly distributed across the following categories: less than 1 year (21%), between 1 year and 2 years (24%), between 2 and 3 years (16%), between 3 and 5 years (20%), and over 5 years (19%). Classification by job type was as follows: 8% in marketing and sales; 13% in production; 9% in engineering; 37% in research and development; 18% in information technology; 6% in supporting functions such as finance, HR, and legal; and 9% in others. In summary, most respondents were highly educated male managers or assistant managers in their 30s.

Results

The results of the study are reported in four parts. First, the construct validity of each measure is examined by confirmatory factor analysis (CFA). Second, the descriptive statistics, correlations, and reliabilities of the measurement model for the structural equation modeling (SEM) analyses are reported. Third, the hypothesized structural model is tested in comparison with an alternative structural model. The final model is selected based on both theoretical considerations and a comparison of statistical indices. Finally, the results of the hypothesis testing are addressed. All model tests (i.e., CFA and SEM) were based on the covariance matrix and used maximum-likelihood estimation as implemented in LISREL 8.8.

Measurement Model Assessment. CFA was used to estimate convergent and discriminant validity of the indicators of the four constructs: core self-evaluations, job autonomy, intrinsic motivation, and in-role job performance. CFA was also conducted to estimate the quality of the factor structure and designated factor loadings by statistically testing the fit between a proposed measurement model and the data (Diamantopoulos & Siguaw, 2000; Hair, Black, Babin, & Anderson, 2010; Yang, 2005).

The goodness-of-fit indices used in this study include: \( \chi^2 \) (chi-square), SRMR (standardized root-mean-square residual), RMSEA (root-mean-square error of approximation), NNFI (non-normed fit index or Tucker Lewis index [TLI]), CFI (comparative fit index). The overall measurement model indicated a very good fit to the data in all indices \( \chi^2 [113] = 199.83; p = 0.00; \chi^2/df = 1.77; \) SRMR = 0.048; RMSEA = 0.052; NNFI = 0.98; CFI = 0.98). All of the factor loadings were over 0.50.
Table 1. Means, Standard Deviations, Correlations, and Reliabilities

<table>
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<tr>
<th>Variables</th>
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<th>2</th>
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<tbody>
<tr>
<td>1. Core self-evaluations</td>
<td>3.42</td>
<td>0.49</td>
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<td>2. Job autonomy</td>
<td>3.76</td>
<td>0.65</td>
<td>0.49*</td>
<td></td>
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<tr>
<td>3. Intrinsic motivation</td>
<td>3.74</td>
<td>0.64</td>
<td>0.54*</td>
<td>0.52*</td>
<td></td>
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<tr>
<td>4. In-role job performance</td>
<td>3.91</td>
<td>0.56</td>
<td>0.60*</td>
<td>0.40*</td>
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Note: The phi matrix from CFA. *p < 0.01; n = 283.

Descriptive Statistics, Correlations, and Reliabilities. Table 1 presents the correlations among the four constructs and the reliabilities. All the correlations indicated significant relationships (p < 0.01) among the constructs. Overall, most correlations showed moderate and positive relationships among the four constructs. The relationship between core self-evaluations and in-role job performance was the highest (r = 0.60), whereas the relationship between job autonomy and in-role job performance was comparatively lower (r = 0.40). All measures demonstrated adequate levels of reliability (0.71 to 0.84).

Structural Model Assessment. The purpose of the structural model analysis is to determine whether the theoretical relationships specified at the conceptualization stage are supported by the data (Diamantopoulos & Siguaw, 2000). The adequacy of the structural model was estimated by comparing the goodness-of-fit to the hypothesized model and an additional nested model. The final model was determined based on the consideration of three criteria: (a) goodness of fit, (b) estimated parameters with theoretical relationships, and (c) the law of parsimony (Hair et al., 2010). The hypotheses were then examined by investigating the path coefficients and the total effect sizes of the constructs in the final model.

Figure 2 illustrates the strengths of the relationships among the constructs, showing the path coefficients of the hypothesized structural model. The hypothesized model indicated a good fit in all indices ($\chi^2 [113] = 199.83$; SRMR = 0.047; RMSEA = 0.052; NNFI = 0.97; CFI = 0.97). Although H1, H2, and H3 were significant, the path from job autonomy to in-role job performance (H4) and the path from intrinsic motivation to job performance (H5) turned out to be nonsignificant.

In addition to the hypothesized model, a nested alternative model was tested. The alternative model excluded the path from job autonomy to in-role job performance (see Figure 3), and it also exhibited an acceptable fit to the data (see Table 2). The remarkable difference between the original model and the alternative model was that, by dropping the path from job autonomy to in-role job performance, the path from intrinsic motivation to in-role job performance became statistically significant. Thus, in this model, intrinsic motivation fully mediates the relationship between job autonomy and in-role job performance, instead of directly influencing in-role job performance.
To conclude, the alternative model was accepted as the final model for the following reasons. First, the hypothesized model and the alternative model provided equivalent fits to the data (see Table 2). Second, although H4 and H5 in the hypothesized model turned out to be nonsignificant, the alternative model better reflects the conceptual model. Third, in terms of the law of parsimony, the alternative model is simpler than the hypothesized one.

**Hypotheses Testing.** All of the research hypotheses in the final model were supported, showing statistically significant path coefficients ($t > 1.96$, $p < 0.05$). Core self-evaluations were found to be significantly associated with intrinsic motivation (H1: path coefficient = 0.38, $t = 4.78$) and also found to
be significantly related to employees’ perceived in-role job performance (H2: path coefficient = 0.52, \( t = 6.58 \)). Although the path between job autonomy and in-role job performance (H4) was dropped in the final model, job autonomy still turned out to be significantly associated with intrinsic motivation (H3: path coefficient = 0.33, \( t = 4.08 \)). Finally, intrinsic motivation was significantly related to in-role job performance (H5: path coefficient = 0.16, \( t = 2.17 \)). In summary, the results suggest that the three antecedents explained 37% of the variance in in-role job performance.

**Discussion**

In this section, the findings of this study are discussed in detail on the basis of the hypothesized model, compared with previous research. Then we discuss the implications of this study for research and practice in the field of HRD. The limitations of this study and recommendations for future research are also discussed. Finally, some concluding thoughts are presented.

**Research Findings.** The results of the study suggest that personality and job-context factors contributed to employees’ intrinsic motivation and in-role job performance. That is, employees exhibited the highest intrinsic motivation when they had higher core self-evaluations and when they perceived higher autonomy in their jobs. In turn, employees perceived the highest in-role job performance when they had higher core self-evaluations and when they perceived higher intrinsic motivation. Overall, 37% of the variance in job performance was explained by the three antecedents. Thus, intrinsic motivation played a partially mediating role on the relationship between core self-evaluations and job performance and a full mediating role on the relationship between job autonomy and job performance. Detailed findings are discussed below.

This study replicated the previous research and confirmed the results in our integrative conceptual framework. Several studies have reported positive relationships among core self-evaluations, motivation, and performance (e.g., Bono & Colbert, 2005; Erez & Judge, 2001; Hiller & Hambrick, 2005; Karatepe & Tekinkus, 2006; Piccolo et al., 2005; Tierney et al., 1999). In addition, Judge et al. (1998) reported the partial mediating role of intrinsic motivation from core self-evaluations to job performance. This study in Korean cultural setting confirmed the previous findings in our integrative conceptual framework.
This study also confirmed the long-known argument from previous studies that the characteristics of job design are critical predictors of employees’ intrinsic motivation (Amabile, 1988, 1996; Hackman & Oldham, 1980). Specifically, this study supported the previous finding that employees tend to have high intrinsic motivation in autonomously designed jobs compared to regulated jobs.

The relationship between job autonomy and in-role job performance (H4) in the hypothesized model, however, turned out to be nonsignificant. Job autonomy is generally expected to result in higher satisfaction and performance (Argote & McGrath, 1993; Dwyer, Schwartz, & Fox, 1992; Loher, Noe, Moeller, & Fitzgerald, 1985; Spector, 1986). Although there is empirical support for the relationship between task autonomy and performance (e.g., Spector, 1986), the effect size is only modest \( r = 0.26 \). Langfred and Moye (2004, p. 934) argued that the positive effects of job autonomy have been “much more elusive in practice than existing theoretical models have suggested (Godard, 2001; Wall, Kemp, Jackson, & Clegg, 1986).” In addition, some studies (e.g., Gellatly & Irving, 2001; George & Jones, 1997; Morrison, 1994) suggested that job autonomy is more related to extrarole (contextual) performance (e.g., creative behavior) rather than in-role performance that focuses more on prescribed task requirements. Moreover, even negative effects of job autonomy on performance and satisfaction have been found (Farh & Scott, 1983).

According to Hackman and Oldham (1976), autonomy leads to the psychological state of experienced responsibility for work outcomes which, in turn, leads to outcomes such as high work effectiveness and high internal work motivation. Thus, instead of a direct influence on job performance, as suggested by Langfred and Moye (2004), this study found that job autonomy would influence performance (high work effectiveness) through its effect on motivation.

**Implications.** With regard to theoretical implications, this study integrated personality, job design, motivation, and performance research. Whereas the links between job performance and individual predictors have been widely investigated, little research has been done to integrate those areas especially in a non-Western (Korean) context. Moreover, this study supported the proposition of Langfred and Moye (2004) that intrinsic motivation will mediate the relationship between job autonomy and in-role job performance.

As for the practical implications, managers may have the most immediate and critical effect on employees’ motivation and performance. First, managers can improve intrinsic motivation and job performance via job redesign. Jobs that are designed to be autonomous, complex, and demanding (high on autonomy and complexity) are expected to foster higher levels of intrinsic motivation than relatively simple, routine, and regulated jobs (Hackman & Oldham, 1980). Task-based intrinsic motivation, which is performing a task for its own sake because of enjoyment and interest in the task, leads to being highly engaged in the task, which helps to spur creative behaviors rather than reliance...
on habitual responses (Amabile, 1996; Csikszentmihalyi, 1996; Parker et al., 2001). Thus, when individuals are intrinsically involved in their work, all of their attention and effort are focused on their jobs, making them more persistent and more likely to exhibit better performance.

One practical recommendation is job enrichment, which entails modifying a job such that an employee has the opportunity to experience achievement, recognition, stimulating work, responsibility, and advancement. Rather than giving employees additional tasks of similar difficulty (horizontal loading), vertical loading consists of giving workers more responsibility (Kreitner & Kinicki, 2001). Thus, job enrichment intervention is most likely to be effective for knowledge workers.

As the numbers of knowledge workers who apply theoretical and analytical knowledge acquired through formal education in developing new products or services are increasing (Drucker, 1999), it is difficult for supervisors to monitor the employees with complex and challenging jobs (Joo, 2007). Micro-managed employees easily lose interest in their jobs (Csikszentmihalyi, 2003). In particular, knowledge workers who have high growth needs and technically uncertain jobs tend to search for jobs that expand their opportunities most fully (Csikszentmihalyi, 2003).

In this context, psychological empowerment in the workplace has emerged since the 1980s as jobs become more complex and work designs include more autonomy (Oldham & Cummings, 1996), and as organizations increasingly require employees who can quickly and flexibly adapt in rapidly changing business environments (Drucker, 1988). The level of employees’ psychological empowerment can be enhanced when managers adopt new roles as coaches or mentors, because they are perceived as role models, friends, and counselors, who accept and help protégés develop positive and secure self-images (Kram, 1985). Because empowerment is the motivational concept of self-efficacy (Conger & Kanungo, 1988), the positive effect of mentoring and coaching will help a protégé form positive cognitions of psychological empowerment (Joo & Shim, 2010).

Along with empowerment, positive psychology or positive organizational behavior (POB) has been emerged over the last 10 years. POB is defined as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, p. 59). One of the constructs in POB is psychological capital (PsyCap) (i.e., self-esteem, generalized self-efficacy, locus of control, and emotional stability) (Luthans, Youssef, & Avolio, 2007) that has similar dimensions of core self-evaluations (i.e., self-esteem, generalized self-efficacy, locus of control, and emotional stability) (Judge et al., 1997, 2002). Luthans and his colleagues argue that PsyCap capacities are states, not enduring traits, so that they could be influenced and developed by other environments and/or people (Luthans et al., 2007). That is, the managers can positively affect employees’ self-esteem
and self-efficacy via coaching and mentoring. In the same vein, we believe that core self-evaluations could be useful not only for selection, but also for developmental purposes.

In order for managers to enhance the job performance of their employees, an integrated strategy that incorporates desirable recruiting and selection methods, elements of job redesign, and interpersonal practices such as coaching and mentoring is required. HRD practitioners can support managers by providing HR practices and services including hiring, retaining, and developing employees with higher core self-evaluations, as well as by designing more challenging, complex, and autonomous jobs.

**Limitations and Future Research.** There are several potential limitations in terms of methodology. First, this study relied on self-reported answers by employees who volunteered to participate. Second, this empirical study confines itself to a cross-sectional survey method, which leaves room for speculation with regard to causality among the variables. In addition, the sample of this study, consisting mostly of highly educated male managers, is likely restricted to a certain group with similar demographic characteristics.

To solve the above limitations methodologically, future research needs to be based on objective indicators and multiple sources. In addition, in order to increase the generalizability of the current study, more studies in various industries representing diverse demographic groups are needed. Although this study only focuses on knowledge workers with higher educational levels, future research should be conducted with workers from different educational backgrounds.

In conclusion, this study investigated the influences of core self-evaluations and job autonomy on intrinsic motivation and in-role job performance. It is imperative to improve intrinsic motivation through effective selection methods for desirable personality, effective interpersonal developmental practices such as coaching and mentoring, as well as job-design efforts for autonomous and challenging jobs. In this way, HRD professionals can help their employees sustain their competitive edge.

**References**


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