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Enhancing work engagement: The roles of psychological capital, authentic leadership, and work empowerment

Baek-Kyoo Joo Doo Hun Lim Sewon Kim

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# Enhancing work engagement

## The roles of psychological capital, authentic leadership, and work empowerment

Enhancing  
work  
engagement

1117

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Baek-Kyoo Joo  
*College of Business, Winona State University, Winona, Minnesota, USA*

Doo Hun Lim  
*Human Resource Development, University of Oklahoma, Norman,  
Oklahoma, USA, and*

Sewon Kim  
*Business, Management and Economics, SUNY Empire State,  
Saratoga Springs, New York, USA*

### Abstract

**Purpose** – The purpose of this paper is to examine the influences of psychological capital (PsyCap) on work engagement. It also investigated the role of work empowerment as a mediator and authentic leadership as a moderator.

**Design/methodology/approach** – Data were collected from 599 knowledge workers in a Korean conglomerate. For statistical analysis, the authors conducted the confirmatory factor analysis, reliability and correlation analysis, and hierarchical multiple regression analyses.

**Findings** – The results suggest that employees were highly engaged when they had higher PsyCap. Work empowerment partially mediated the relationship between PsyCap and work engagement. While authentic leadership was found to moderate the relationship between PsyCap and work empowerment, the proposed moderation effect of authentic leadership on the relationship between PsyCap and work engagement turned out to be non-significant.

**Research limitations/implications** – The sample of this study was focused on knowledge workers in the Korean private sector who are mostly male junior or middle managers. This empirical study relied on a cross-sectional survey method. As the results of exploratory and confirmatory factor analyses, however, common method variance was found not to be of great concern.

**Practical implications** – HR and OD practitioners can help employees develop more positive attitudes about their work. It is also important to improve employees' empowerment and engagement level not only by helping employees enhance the level of PsyCap, but also by job enrichment and by developing authentic and supportive leadership.

**Originality/value** – The contributions of this study to theory lie in the fact that it: took an integrative approach encompassing both personal and contextual factors; introduced relatively new constructs in empowerment and engagement research: PsyCap and authentic leadership; was an international study, based on Korean cultural context.

**Keywords** Empowerment, Engagement, Authentic leadership, Psychological capital

**Paper type** Research paper

### Introduction

Positive organizational behavior (POB) is an emerging field in organization studies (Luthans *et al.*, 2007). POB is referred to as “the study and application of positive-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). In POB, only positive psychological capacities are included. Being state-like vs trait-like, these positive aspects could be developed through performance improvement solutions such as training programs and other



organization development (OD) interventions (Luthans *et al.*, 2006). This study examines the relationships among the four POB constructs: psychological capital (PsyCap), work empowerment, authentic leadership, and work engagement.

Engagement has been a focal research topic among organizational researchers for the last decade. Kahn (1990), who first conceptualized engagement, defined it as “harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performance” (p. 693). Organizational researchers have investigated the potential associations among employee engagement, organizational improvement, and financial performance (e.g. Harter *et al.*, 2002; Salanova *et al.*, 2005). Despite the growing interest of employee engagement influencing employees at work, few research efforts have been put toward systematic investigation of employee engagement (Christian *et al.*, 2011; Saks, 2006).

In addition, work empowerment is a critical factor for success in any organization in the current knowledge-based economy. Work empowerment can be defined as the “process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information” (Conger and Kanungo, 1988, p. 474). Due to its importance, the positive influence of empowerment on several organizational variables such as employees’ health, and job satisfaction, and loyalty have been studied by several researchers (Spreitzer, 1996). However, only a handful of scholars have indicated the possible relationship between work empowerment and engagement (e.g. Laschinger *et al.*, 2006; May *et al.*, 2004; Spreitzer, 1995).

PsyCap, a relatively new construct in POB, refers to a positive psychological state for individual development. PsyCap is comprised of four sub-constructs (efficacy, optimism, hope, and resiliency) (Luthans *et al.*, 2007). A high level of PsyCap is believed to help employees: persist to achieve goals and redirect paths to goals for success; become confident to put active effort for challenging objectives; demonstrate resiliency to attain task goals even in adversity situations; and possess a positive optimism about current and future success (Luthans *et al.*, 2007).

The last issue covered in this study is the influence of leadership aspects on followers’ engagement. Authentic leadership is claimed to lead particular leader behavior facilitating psychological capacities and ethical climate in a positive way (Walumbwa *et al.*, 2008). The attributes of an authentic leader include confidence, hopefulness, resilience, transparency, morality, future-based orientation, and helping employees become leaders (Luthans, 2011). The positive impact of authentic leadership on psychological empowerment has been often noted when leaders with an authentic orientation empower their followers to build commitment toward an organization’s goals and objectives (Avolio *et al.*, 2005). However, to our knowledge, few attempts have been made to empirically investigate the effect of authentic leadership on the level of employee engagement.

Employee engagement has become a key concern of management and industrial and organizational psychology scholars as one of the most frequently studied factors associated with job satisfaction, organizational change, work innovation, and performance improvement (Christian *et al.*, 2011; Joo and McLean, 2006). In the fields of human resources (HR) and organizational behavior, however, while there are an increasing number of studies separately exploring the effect of PsyCap, authentic leadership, work empowerment, and employee engagement, no empirical study has examined the comprehensive and dynamic relationships among these key POB topics within organization settings.

The purpose of this study is to investigate the influence of PsyCap, work empowerment, and authentic leadership on employee's work engagement. This study is one of the first studies that explore the impacts of PsyCap, work empowerment, and authentic leadership together on employee engagement in a Korean context, thereby contributing to the body of knowledge for engagement research.

### Conceptual framework and hypotheses

The theoretical framework of this study is based on the literature review. Figure 1 illustrates the hypothesized model of this study.

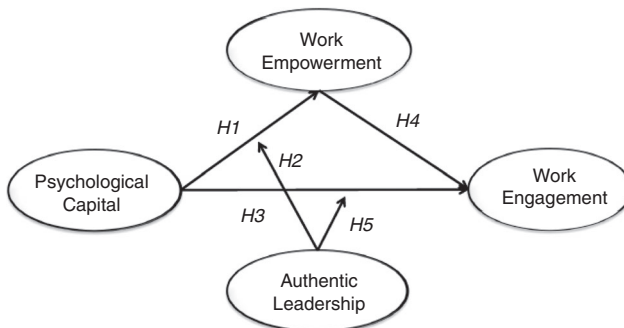
#### *PsyCap*

PsyCap is a higher-order positive state comprising the four sub-facets: self-efficacy, hope, resiliency, and optimism (Luthans *et al.*, 2007). Self-efficacy refers to the confidence about one's abilities to use the cognitive resources, motivation, and courses of action in order to effectively complete various tasks in a job context (Stajkovic and Luthans, 1998). Hope refers to a "positive motivational state based on an interactively derived sense of goal-directed energy and planning to meet goals" (Snyder *et al.*, 1991, p. 102). Resilience refers to the capacity to rebound from adversary and failure situation (Luthans, 2002). Optimism is considered as an attitudinal characteristics of an individual attributing positive events as personal, permanent, and pervasive while expecting negative events as external, temporary, and situation specific (Seligman, 1998).

Luthans *et al.* (2007) proposed PsyCap is above and beyond human capital and social capital, as follows.

PsyCap recognizes, builds upon, and goes beyond the existing established theory and research on human capital, that is "what you know," and social capital that is "who you know" (e.g. Adler and Kwon, 2002; Coleman, 1988; Hitt and Ireland, 2002; Wright and Snell, 1991). Specifically, PsyCap is about "who you are" and, in the developmental sense, "who you are becoming" (Avolio and Luthans, 2006; Luthans *et al.*, 2004; Luthans and Youssef, 2004).

That is, PsyCap concerns about developmental nature of self (from actual to possible) (Avolio and Luthans, 2006). PsyCap provides a more inclusive framework for characterizing human assets in organizations by systematically integrating human and social capital (Luthans *et al.*, 2007). Thus, PsyCap is central to the POB research because PsyCap has been empirically tested as state-like (Luthans *et al.*, 2007) and developmental in nature (Luthans *et al.*, 2008).



**Figure 1.**  
Conceptual  
(hypothesized) model

*Work empowerment*

Work empowerment combines concepts such as job characteristics (Hackman and Oldham, 1975) and psychological empowerment (Spreitzer, 1995). Oldham and Cummings (1996) explained work empowerment as consisted of five factors (variety, identity, significance, autonomy, and feedback). Research has identified job characteristics as a predictor for affecting employee motivation and performance at work (Amabile, 1988; Shalley *et al.*, 2004; West and Farr, 1990). Later, psychological empowerment captured organizational researchers and practitioners' interests. Psychological empowerment refers to "intrinsic task motivation manifested in a set of four cognitions reflecting an individual's orientation to his or her work role: competence, impact, meaning, and self-determination" (Spreitzer, 1995, p. 1443).

More recently, Nimon *et al.* (2011) developed the Work Cognition Inventory (WCI) to investigate the cognitive work experiences of employees that are essential to facilitating work passion. In this study, of eight factors of work cognition, we adopted four factors (i.e. autonomy, feedback, meaningfulness, and growth) that are directly associated with positive work experience and we grouped them together under the name of work empowerment. These factors are closely related to organizational commitment, job satisfaction, and intrinsic motivation (Nimon *et al.*, 2011). Autonomy refers to individual perception of having discretion about how they go about getting their work done. Feedback refers to individual perception of having access to relevant information on their job performance from multiple sources. Meaningfulness refers to individual perception of the significance of their activities to others inside and outside the organization. Last, growth refers to the individual perception of the opportunities of learning, job growth, and career movement in their organization.

Previous studies found that empowered individuals are more innovative and creative, perceive more efficacious in completing tasks (Spreitzer, 1995), and demonstrate more extra-role behavior (Morrison and Phelps, 1999). Consequently, empowered individuals are evaluated as more effective by their co-workers or other organizational members (Quinn and Spreitzer, 1997). Rigorous studies have been conducted to find the factors affecting an individual's empowerment level: practices increasing one's self-efficacy (Conger and Kanungo, 1988); openness and good teamwork (Quinn and Spreitzer, 1997); and empowering leadership, reward systems, and job design (Thomas and Velthouse, 1990), to name a few.

*PsyCap – work empowerment.* While many researchers have studied the influential relationship between PsyCap and employee attitudinal and behavioral variables such as organizational citizenship and work performance, only a few studies have examined the direct relationship between PsyCap and work empowerment. Luthans *et al.* (2007) claimed that in general employees possessing high level of PsyCap are more intrinsically motivated and proactive in task situation. In particular, employees with hope, one of the PsyCap characteristics, are more independent thinkers and demonstrate internal locus of control with autonomy. No study has investigated the relationship between PsyCap and empowerment. Based on related research, however, employees with high self-efficacy, hope, resilience, and optimism are likely to have a high level of meaningfulness and feedback in job and to seek for growth and achievement:

*H1.* PsyCap (i.e. efficacy, hope, resilience, and optimism) will be positively related to work empowerment (i.e. autonomy, feedback, meaningfulness, and growth).

### *Authentic leadership*

Authentic leadership is a leadership style that promotes ethical climate and positive psychological capacities for the purpose of developing an internalized moral and ethical perspective, balanced sense of information processing, leader's transparent relationship with followers, and nurturing self-awareness and self-development (Walumbwa *et al.*, 2008).

To describe the four dimensions, similar words are commonly used: honesty, integrity, fairness, strengths, openness, and truthfulness (Gardner *et al.*, 2005; Ilies *et al.*, 2005; Kernis and Goldman, 2005; Luthans and Avolio, 2003). While these variables have been studied independently in previous research, the four dimensions share similar conceptual commonalities (Kernis and Goldman, 2005). Gardner *et al.* (2005) considered the four dimensions as self-regulatory processes and governed through leaders' mental standards and self-evaluation of behavior.

Authentic leaders are believed to be transformational. In their recent canonical correlation study, Joo and Nimon (2014) reported that the composite of transformational leadership (i.e. idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) was strongly and significantly related to the composite of authentic leadership (i.e. transparency, moral/ethical, balanced processing, and self-awareness), accounting for 82 percent of the shared variance between the two variable sets. In their recent article, Ghadi *et al.* (2013) reported the significant link between transformational leadership and work engagement. Kumar (2014) also found that relational transparency and self-awareness of authentic leadership influenced belongingness and self-efficacy of psychological ownership in the Indian cultural context.

As Prince (2005) stated, while in Western culture leadership can be examined and is about active and shaping control and modification of environmental context, in East Asian culture, more specifically for *Taoism*, it is about relational engagement, understanding others and co-ordination. We believe that authentic leadership tends to be more fit with East Asian culture than other leadership theories that have been developed so far.

#### *Authentic leadership as a moderator between PsyCap and work empowerment.*

Employees who work with authentic leaders are more likely to be empowered, as the leaders tend to influence their followers' value and behavior so that their followers can be transparent, ethical, and moral. Furthermore, authentic leaders are effective in encouraging their followers so that they can contribute to organizational improvement through escalated empowerment (Laschinger *et al.*, 2001). It is assumed that when individuals are high in those four PsyCap dimensions and when they work with authentic leaders, they will have a higher level of work empowerment:

- H2. Authentic leadership (i.e. transparency, moral/ethical, balanced processing, and self-awareness) will moderate the relationship between PsyCap and work empowerment (i.e. autonomy, feedback, meaningfulness, and growth).

### *Work engagement*

Kahn (1990) defined employee engagement as the manifestation of people's whole selves (physical, cognitive, and emotional) in their work role. He conceptualized that how employee perceives the work contexts surrounding him or her influences the level of the person's favorable engagement with it. Thus, each individual may experience differing levels of his or herself in relation to the individual work role. That is, employees in a more supportive work condition would be more engaged and committed

to work roles. In this study, we used the notion of work engagement that is defined as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli *et al.*, 2002, p. 74). That is, we consider work engagement is about how employees perceive their work (Bakker *et al.*, 2008): as an intentional and thoughtful pursuit of work (dedication or cognitive engagement); as absorbing and interesting (emotional engagement); and as inspiring and energetic that they are willing to devote themselves with passion (vigor or behavioral engagement).

Previous research reported that engaged employees tend to produce positive organizational outcomes, including increased customer satisfaction, enhanced productivity, lower turnover intention and absenteeism (Harter *et al.*, 2002), increased in-role and extra-role behavior (Schaufeli *et al.*, 2006), and elevated organizational commitment (Schaufeli and Bakker, 2004).

*PsyCap – work engagement.* Avey *et al.* (2011), in their meta-analytic study of PsyCap, found that PsyCap influences on employee attitudes in a desirable way. Employees with higher PsyCap tend to pursue higher goals (hope), perceive self-competence in personal success (efficacy), think positive way in workplace (optimism), and are more resistant to obstacle (resilience). While Sweetman and Luthans (2010) elaborated the potential link between the two in their conceptual paper, no empirical evidence was reported that PsyCap is directly related to engagement yet. As employees with high PsyCap are more intrinsically motivated, they are likely to demonstrate more characteristics related to fulfillment, vigor, dedication, and absorption, which result in employee productivity, lower turnover, and lower absenteeism:

*H3.* PsyCap (i.e. efficacy, hope, resilience, and optimism) will be positively related to work engagement (i.e. vigor, dedication, and absorption).

*Work empowerment – work engagement.* If empowerment is defined as the “experience of authority and responsibility” (Mathieu *et al.*, 2006, p. 98), it is regarded as an antecedent or a condition for engagement (Macey and Schneider, 2008). Spreitzer (1995) posited the four dimensions of empowerment – meaning, competence, self-determination, and impact. Spreitzer (1995) further illustrated that those four cognitive dimensions infer a person’s willingness to shape his or her work role and context.

We found only a few empirical studies that investigated the relationship between work empowerment and work engagement (e.g. Laschinger *et al.*, 2006; Macey and Schneider, 2008). The results of these studies showed that empowerment positively affect employees’ engagement. The four dimensions of work empowerment (i.e. autonomy, feedback, meaningfulness, and growth) represent intrinsic motivation through job experience. Based on the previous research in psychological empowerment and job characteristics, we assumed that the four cognitive dimensions of work empowerment would be positively related to work engagement:

*H4.* Work empowerment (i.e. autonomy, feedback, meaningfulness, and growth) will be positively related to work engagement (i.e. vigor, dedication, and absorption).

*Authentic leadership as a moderator between PsyCap and work engagement.* A close relationship between authentic leadership and engagement is easily expected. It has been argued that followers who work with authentic leaders are more likely to be engaged, as the leaders tend to influence their followers’ value and behavior so that their followers are able to be transparent, fair, ethical, and moral (Giallonardo *et al.*, 2010). Surprisingly, however, no study has investigated the interaction effects of

PsyCap and authentic leadership on employee engagement. In addition to the two main effects, we hypothesized interaction effects of authentic leadership and the four dimensions of PsyCap. When individuals are high in those four PsyCap dimensions and they work with authentic leaders, they are more likely to have a higher level of work engagement (vigor, dedication, and absorption):

*H5.* Authentic leadership (i.e. transparency, moral/ethical, balanced processing, and self-awareness) will moderate the relationship between PsyCap and work engagement.

In sum, the theoretical framework suggests the research model as shown in Figure 1 to clarify the positive relationship of psychological empowerment and transformational leadership with employee engagement.

## Methods

### *Data collection and sample*

Data were collected from employees in a large for-profit Korean conglomerate that consists of 12 subsidiaries. HR managers of each company distributed the survey questionnaires to 750 employees, and 559 were returned (75 percent response rate). The sample in this study included 92 employees at three companies in the financial industry, 201 at four companies in manufacturing, 175 at three companies in service industry, and 91 at the construction and trading company.

The demographic variables included gender, age, education level, hierarchical level, the type of job, and the length of a leader-follower relationship. Most respondents were male (81 percent) in their 30s (39 percent) and 40s (48 percent) in managerial positions (84 percent). Regarding education, 67 percent of the respondents graduated from a four-year college and 21 percent from graduate school. As deemed, most respondents were highly educated male managers in their 30s and 40s.

### *Measures*

To measure the constructs we selected four instruments that indicated good levels of reliability and validity as found from the previous studies. For this study, the instruments were translated into Korean through the four steps of translations: forward translation, assessment, backward translation, and assessment based on the criteria of the clarity, common language, and cultural adequacy (Presser *et al.*, 2004). More specifically, the first author of this paper who is an English-Korean bilingual translated the original instruments into Korean. Then, another bilingual professor translated the Korean version into English, and two-third party professors in the USA compared the result with the original version. We believe the survey items could be refined in the Korean language in this process. A six-point Likert-type scale ranging from 0 (strongly disagree) to 5 (strongly agree) was used.

*PsyCap.* We assessed PsyCap using the 24-item Psychological Capital Questionnaire (PCQ), which was developed and validated by Luthans *et al.* (2007). All the copyrights are reserved and distributed by Mind Garden, Inc. Each of the four components contains six items of the PCQ scales: hope, resilience, optimism, and efficacy. Sample items include: "I feel confident analyzing a long-term problem to find a solution" (efficacy); "There are lots of ways around any problem" (hope); "I usually take stressful things at work in stride" (resilience); "When things are uncertain for me at work, I usually expect the best" (optimism). This measure provided enough evidence about



the convergent validity of the four sub-scales in efficacy, hope, optimism, and resiliency (Luthans *et al.*, 2007). The reliabilities of each component ranged from 0.82 to 0.87.

*Authentic leadership.* This study used the 16-item Authentic Leadership Questionnaire that was developed and validated by Avolio *et al.* (2005). It is noted that the copyrights are reserved and distributed by Mind Garden, Inc. Walumbwa *et al.* (2008) illustrated substantial evidence of both convergent and discriminant validity in relation to the transformational and ethical leadership. Sample items include: "The supervisor says exactly what he or she means" (transparency); "[...] makes difficult decisions based on high standards of ethical conduct" (moral/ethical perspective); "[...] listens carefully to different points of view before coming to conclusions" (balanced processing), "[...] accurately describes how others view his or her capabilities" (self-awareness). The reliabilities of each dimension ranged from 0.86 to 0.91.

*Work empowerment.* This construct is a subjective measure based on the employees' perception of their work. We adopted 12 items from the WCI (Nimon *et al.*, 2011) to assess the four dimensions of positive experience of employees' jobs. The copyrights are reserved and distributed by The Ken Blanchard Companies. The reliabilities of each dimension in this study ranged from 0.81 to 0.91. Sample items include "I have the ability to choose how tasks are performed" (autonomy), "I am recognized for improvements in my performance" (feedback), "I understand how my work serves the organization's purpose" (meaningfulness), and "I have opportunities to develop new skills to do my present job" (growth).

*Work engagement.* We used the nine items of the Utrecht Work Engagement Scale (UWES 9; Schaufeli *et al.*, 2006) to measure the level of perceived work engagement of the participants. The items in the UWES include three aspects of employee engagement: vigor, dedication, and absorption. This instrument has been validated in various cultural and ethnic contexts (e.g. Europe, North America, Asia, Australia, and Africa). In this study, we used it as a unidimensional measure. The internal consistency reliability was 0.91. Sample questions for each dimension are "At my work, I feel bursting with energy" (vigor), "I am enthusiastic about my job" (dedication), and "I am immersed in my work" (absorption).

## Results

### *Measurement model assessment*

As Podsakoff *et al.* (2003) suggested, we inspected the possible common method bias problem using Harman's single factor test. Exploratory factor analysis based on a maximum likelihood estimation showed 11 factors with eigenvalues greater than 1. The first factor explained about 19 percent of the covariance of the variables. Since there was no dominant factor explaining the covariance among independent and dependent variables in the sample, the sample we used in this study was not seriously tainted by common method bias.

We, then, estimated the validity of the four measures using confirmatory factor analysis (CFA), which can estimate the quality of the factor structure and designated factor loadings by statistically testing the fit between the measurement model and the collected data (Kline, 2005). The measurement model test (i.e. CFA) was based on a covariance matrix and used maximum likelihood estimation as implemented in LISREL 8.8. The goodness-of-fit indices employed in this analysis included  $\chi^2$ , root mean square residual, root mean square error of approximation, non-normed fit index, and comparative fit index.

To validate the four constructs in a Korean cultural setting, three different models were compared in terms of goodness-of-fit (see Table I). The first model combined all of the items in one factor. The second model was a three-factor model: PsyCap, authentic leadership, and work empowerment and work engagement combined. The last model was a four-factor model including PsyCap, work empowerment, authentic leadership, and work engagement. As a result of the comparison, the four-factor model turned out to be the best measurement model in all indices. The overall measurement model indicated a very good fit to the data in all indices (see Table I). All of the factor loadings were significant and over 0.50. Thus, the results of the CFA provided further validity for the model and the instruments in a Korean cultural setting.

*Descriptive statistics, correlations, and reliabilities*

Table II illustrates internal consistency reliabilities as well as correlations among work engagement and the sub-dimensions of PsyCap, work empowerment, and authentic leadership.

All measures demonstrated adequate levels of reliability (Cronbach's  $\alpha = 0.80-0.91$ ). All the correlations indicated significant relationships ( $p < 0.01$ ). Overall, most correlations showed moderate and positive relationships. The relationship between PsyCap and work engagement ( $r = 0.76^{**}$ ) and the relationship between work empowerment and work engagement ( $r = 0.72^{**}$ ) were relatively stronger, whereas the relationship between authentic leadership and work engagement was comparatively

	$\chi^2$	df	RMSEA	NNFI	CFI	SRMR
One-factor model (all in one construct)	27,697**	1,769	0.160	0.93	0.94	0.100
Three-factor model (PsyCap, authentic leadership, and work empowerment/work engagement)	6,516**	1,733	0.070	0.97	0.97	0.059
Four-factor model (PsyCap, authentic leadership, work empowerment, and work engagement)	4,243**	1,691	0.052	0.98	0.98	0.047

Note: \*\* $p < 0.01$

**Table I.**  
Comparison of  
CFA results

Variables	M	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.81	0.39	-								
2. Age	2.53	0.72	0.34**	-							
3. Educational level	3.05	0.69	-0.11*	-0.05	-						
4. Hierarchical level	2.28	0.73	0.34**	0.76**	0.03	-					
5. Tenure in job	3.17	1.60	0.00	0.49**	-0.18**	0.39**	-				
6. PsyCap	3.88	0.64	0.23**	0.29**	0.04	0.32**	0.11**	(0.81)			
7. Authentic leadership	3.88	0.67	0.16**	0.20**	-0.04	0.21**	0.09*	0.49**	(0.94)		
8. Work empowerment	3.78	0.69	0.18**	0.20**	-0.00	0.24**	0.08	0.72**	0.65**	(0.85)	
9. Work engagement	3.95	0.53	0.19**	0.29**	0.01	0.30**	0.16**	0.76**	0.47**	0.69**	(0.91)

Notes:  $n = 559$ , Pearson correlation. \* $p < 0.05$ ; \*\* $p < 0.01$

**Table II.**  
Means, standard  
deviations,  
correlations, and  
reliabilities

lower ( $r = 0.42^{**}$ ). The relationships among the sub-dimensions of authentic leadership were stronger ( $r = 0.75-0.83^{**}$ ) than the relationships among the sub-dimensions of PsyCap ( $r = 0.51-0.75^{**}$ ) and work empowerment ( $r = 0.52-0.64^{**}$ ).

*Hierarchical multiple regression analysis*

Table III shows the results from hierarchical multiple regression analyses. In step 1, demographic variables such as gender, age, education level, hierarchical level, and the length of a leader-follower relationship were entered to examine any influence on work empowerment and work engagement. Gender and hierarchical level turned out to be significant. That is, male employees and those in higher level in hierarchy indicated higher perceived empowerment as well as work engagement. The  $R^2$  for the two regression analyses were 6 and 10 percent, respectively. In step 2, the four dimensions

	Work empowerment				Work engagement				
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Demographics</i>									
Gender	0.10*	0.00	-0.01	-0.02	0.10*	0.00	-0.01	-0.00	-0.01
Age	0.04	-0.03	-0.03	-0.02	0.11	0.04	0.06	0.06	0.06
Education	0.01	-0.04	-0.02	-0.02	0.03	0.00	0.01	0.01	0.01
Hierarchical level	0.18**	-0.04	-0.02	-0.01	0.16**	-0.02	-0.01	-0.01	-0.02
Tenure	-0.01	-0.01	-0.01	-0.01	0.05	0.05	0.06	0.06*	0.06*
<i>Psychological capital</i>									
Efficacy		0.26**	0.23**	-0.33		0.17**	0.11**	0.11**	0.09
Hope		0.32**	0.24**	1.04**		0.47**	0.37**	0.38**	0.71**
Resilience		0.00	-0.00	-0.38		-0.00	-0.01	-0.01	-0.32
Optimism		0.27**	0.16**	0.58**		0.22**	0.13**	0.12**	0.19
<i>Work empowerment</i>									
Job autonomy							0.01	0.01	0.01
Feedback							0.07	0.06	0.06
Meaningfulness							0.09*	0.08*	0.08
Growth opportunity							0.19**	0.19**	0.19**
<i>Authentic leadership (AL)</i>									
Transparency			0.26**	0.38**				0.06	0.08
Moral/ethical			0.06	0.21**				-0.01	0.01
Balanced processing			0.07	0.20**				0.05	0.07
Self-awareness			0.03	0.16*				-0.09	-0.07
<i>Interactions</i>									
Efficacy × AL				0.99**					0.04
Hope × AL				-1.67**					-0.70
Resilience × AL				0.80					0.67
Optimism × AL				-0.77*					-0.12
F-value	8.16**	68.10**	77.23**	62.04**	13.50**	93.88**	79.40**	60.96**	49.40**
Adjusted $R^2$	0.06	0.52	0.64	0.65	0.10	0.60	0.65	0.65	0.65
$\Delta R^2$	-	0.46	0.12	0.01	-	0.50	0.05	0.00	0.00
<b>Notes:</b> * $p < 0.05$ ; ** $p < 0.01$									

**Table III.** Hierarchical multiple regression results for work empowerment and work engagement

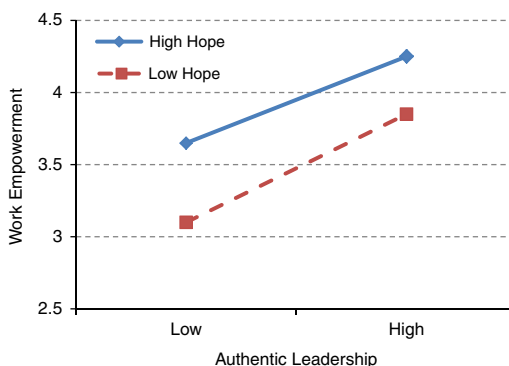
of PsyCap were included to examine its main effect on work empowerment and work engagement. All but resilience turned out to be significant, and the changes in  $R^2$  were 46 and 50 percent, respectively. Step 3 was conducted only for work engagement to create Model 3. Work empowerment was included to clarify any influence of this variable on work engagement. Two of the four dimensions (i.e. meaningfulness and growth) turned out to be significant. The change in  $R^2$  was 5 percent. In step 4, authentic leadership was added. Although authentic leadership was found to be significant on work empowerment ( $\Delta R^2 = 0.12$ ), it was non-significant on work engagement ( $\Delta R^2 = 0.00$ ). Of the four dimensions of authentic leadership, only transparency turned out to be significant.

For the interaction effects, authentic leadership was regarded as a unidimensional construct, as it had strong correlation coefficients among the sub-constructs ranging from 0.75 to 0.83. Four interaction terms combining authentic leadership and each sub-dimension of PsyCap were examined. The three interactions were found to be significant as shown in Figures 2-4: efficacy and authentic leadership, hope and authentic leadership, and optimism and authentic leadership.

More specific about the moderating effects of authentic leadership on the relationship between PsyCap and work empowerment, although there was little change in  $R^2$ , three interaction terms indicated statistical significance: efficacy and authentic leadership, hope and authentic leadership, and optimism and authentic leadership ( $p < 0.01$ ). The three interactions indicated a similar pattern. When employees had



**Figure 2.**  
Interaction effect of  
self-efficacy and  
authentic leadership  
on work  
empowerment



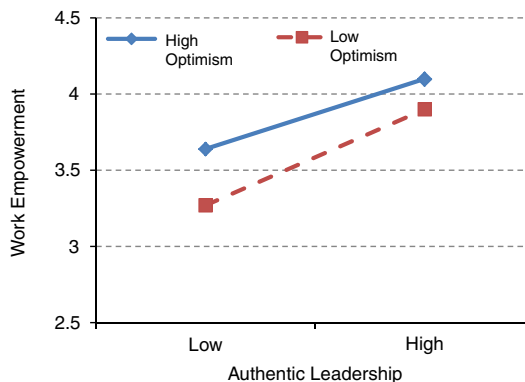
**Figure 3.**  
Interaction effect of  
hope and authentic  
leadership on work  
empowerment

higher PsyCap (i.e. efficacy, hope, and optimism) and when employees perceived a high level of authentic leadership, they tended to feel more empowered in their work. However, when the employees had a high-PsyCap level, the role of authentic leadership showed relatively less effect on work empowerment. That is, regardless of the presence of authentic leadership, employees with high efficacy, hope, and optimism were highly empowered in their work. Conversely, for those who have low PsyCap, the role of authentic leadership had more effect on work empowerment. That is, employees perceived more empowerment regardless of situation (authentic leadership) when personal characteristics (PsyCap) were strong. On the contrary, when personality was weak, situational factor mattered.

In summary, the demographic variables, sub-dimensions of PsyCap, authentic leadership, and the interactions explained 65 percent of the variance in work empowerment. In terms of the changes in  $R^2$ , work empowerment was more accounted for by PsyCap ( $\Delta R^2 = 0.46$ ) than authentic leadership ( $\Delta R^2 = 0.12$ ) and its interactions ( $\Delta R^2 = 0.01$ ). As for work engagement, the demographic variables and sub-dimensions of PsyCap, work empowerment, authentic leadership, and the interactions between PsyCap and authentic leadership explained 65 percent of the variance in work engagement. Based on the changes in  $R^2$ , employee engagement was more influenced by PsyCap ( $\Delta R^2 = 0.50$ ) than work empowerment ( $\Delta R^2 = 0.05$ ). There was no effect of authentic leadership and its interactions with PsyCap on work engagement ( $\Delta R^2 = 0.00$ ).

### Discussion

The study results indicated that personal, job, and contextual factors contributed to employees' work engagement. We found that PsyCap was a strong predictor not only for work empowerment (*H1*) but also for work engagement (*H3*). Luthans *et al.* (2007) claimed that employees possessing high level of PsyCap are more intrinsically motivated in task situation, and demonstrate internal locus of control with autonomy. This is the first study that empirically identified the positive effect of PsyCap on empowerment and engagement. In addition, this study also found that empowerment was a significant antecedent of work engagement (*H4*), supporting previous research (e.g. Laschinger *et al.*, 2006; Macey and Schneider, 2008). Thus, work empowerment partially mediated the relationship between PsyCap and work engagement. Finally, authentic leadership significantly moderated the relationship between the three



**Figure 4.**  
Interaction effect of  
optimism and  
authentic leadership  
on work  
empowerment

dimensions of PsyCap (efficacy, hope, and optimism) and work empowerment (*H2*). However, there was no significant moderation effect of authentic leadership on the relationship between PsyCap and work engagement (*H5*). Overall, 65 percent of the variance, coincidentally, both in work empowerment and work engagement was accounted for.

#### *Implications for research and practice*

Despite an increasing number of studies on engagement, previous research on employee attitudes and behaviors has been sparsely focused on PsyCap and authentic leadership. In filling this research gap, this study integrated the four emerging POB constructs including PsyCap, empowerment, authentic leadership, and engagement. It is also noted that we collected data from the employees in a non-Western (Korean) context. For research implications, two possible discussions can be made from further reflections of the study findings: connection to existing theory of POB and cross-cultural research implication. Regarding the connection of this study to theory, it took an integrative approach encompassing both personal and contextual factors, introducing relatively new constructs in empowerment and engagement research: PsyCap and authentic leadership. For cross-cultural research implications, this study expanded the scope of the study through an international study, based on Korean cultural context.

First, human behavior can be explained as a function of personality and his or her perception on the environment (Burke, 2002). In engagement research, only a handful of studies have simultaneously investigated personal and contextual antecedents. In investigating the effect of any organizational factors on attitudinal and/or behavioral outcomes such as employee engagement, one needs to consider multiple arrays of surrounding factors. To satisfy the needs of empirical exploration, we introduced new constructs (i.e. PsyCap and authentic leadership) in engagement research, which is one of the significance of this study. Here, the former was a major source of intrinsic motivation that lead to empowerment and engagement, and the latter was a critical external factor that moderated the relationship between PsyCap and empowerment.

We also included the perceived job empowerment as a mediator between PsyCap and engagement. While there are a few previous studies that investigated authentic leadership (Laschinger *et al.*, 2001) and empowerment (Laschinger *et al.*, 2006; Macey and Schneider, 2008) as an antecedent of engagement, no studies have identified authentic leadership as a moderator. Based on the proposition that authentic leadership may role as a moderator, we have examined its moderating effect on employee engagement and identified the proposed relationship model from our study findings. We also empirically verified Sweetman and Luthans' (2010) proposition that PsyCap is positively associated with work engagement. PsyCap was the strong and significant predictor for employees' perception of engagement as well as empowerment. Thus, this is the first empirical study that discovered the dynamic mechanism between PsyCap (personal factor), authentic leadership (contextual factor), and empowerment (job factor) on employee engagement.

In addition, all the measures in this study were developed in the USA, and there are few studies conducted in international settings. Conducted in a Korean cultural context, our study expanded the scope of study into a cross-cultural setting. Thus, the results of this study could be a significant building block for understanding and expanding the knowledge work empowerment and engagement in various cross-

cultural settings, especially within Korean organizational context. For this study result to be generalized, future research needs to be done in different culture and various industries. Also, future studies should consider how ethnic, cultural, or other national variables can be intertwined to form the influential relationships between the study variables in foreign context.

In terms of practical implications, from the HR and OD viewpoint, we believe PsyCap, authentic leadership, and empowerment can be improved with various employee development and OD programs. More specifically, HR/OD practitioners could adopt the suggestions in such areas as: staffing and selection, leadership development, and job redesign.

PsyCap played a pivotal role for empowerment and engagement in this study. HR practitioners need to consider the key features of PsyCap as a screening tool when they hire and select new employees. According to Luthans (2002; Luthans *et al.*, 2007), since PsyCap is open to development, supportive leadership as well as training and development programs could lead employees to a higher level of hope, efficacy, resilience, and optimism. These training and development programs also need to be integrated into overall employee performance management and reward system of the organization as an ongoing facilitating tool.

With regards to leadership, employees' perceptions of authentic leadership significantly moderated the relationship between PsyCap and empowerment. More specific, among others, leader's transparency had a strong explanatory power to empowerment. According to Joo and Nimon (2014), authentic leaders possess the key features of transformational leadership. As the role of leader has changed from traditional hierarchical director to being supportive and non-controlling, leadership development effort focusing on how to effectively provide coaching and feedback as well as transformational leadership could play a pivotal role in enhancing employees' empowerment and engagement. To make it effective, this type of leadership development initiative can be augmented when there is a strong support from the top executive level of the organization.

In addition, work empowerment significantly mediated the relationship between PsyCap and engagement. To increase the level of perception of work empowerment, job enrichment would be essential. In particular, the sample of this study included so-called knowledge workers with higher educational level. Managers and HR/OD practitioners can empower employees by designing more responsible, challenging, and autonomous jobs that can significantly and positively influence the performance of the others and the organization. Also, job enrichment can be improved significantly when employees are allowed a more creative task and work environment with less structured job configurations.

To conclude, HR/OD professionals can support managers by providing relevant practices and services. Each HR practice should be delivered and applied in a concerted way and in a holistic perspective. That is, enhancing engagement of employees will require an integrated strategy, incorporating elements of staffing, leadership development, and job redesign.

#### *Limitations and future research*

There are several limitations in methodology. First, the sample of this study included a group of respondents with similar demographic characteristics: private sector employees in a Korean cultural setting. More specifically, the sample of this study mainly consists of highly educated male managers, or knowledge workers. Future

research should be conducted with workers from different educational backgrounds. For cross-cultural verification, future studies comparing the study constructs within different cultural context (e.g. Western countries) are also warranted. In addition, to increase the generalizability of the present study, more studies in various industries representing diverse demographic groups are needed.

Second, by relying on self-reported responses from volunteered employees, this cross-sectional survey method leaves room for speculation with regard to causality among the variables. To check for possible common method bias, however, we conducted additional tests suggested by Podsakoff *et al.* (2003). As a result, however, we concluded that common method variance is not of great concern. We also found the four-factor measurement model has the best fit to the data as the results of a series of CFAs. More longitudinal studies based on multiple sources are suggested in the future to solve the above limitations methodologically.

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#### About the authors

Baek-Kyoo Joo is an Assistant Professor of Human Resources Management at Georgia Southwestern State University, USA. He received his PhD in Human Resource Development and an MA in Human Resources and Industrial Relations from the University of Minnesota. His current research interests include positive organizational behavior, organizational creativity, leadership, coaching, career satisfaction, and international human resources management. He has published research papers in such journals as *Career Development International*, *Human Resource Development Quarterly*, *Journal of Leadership and Organizational Studies*, and *Leadership and Organization Development Journal*. Baek-Kyoo Joo is the corresponding author and can be contacted at: baekkyoo.joo@gmail.com

Doo Hun Lim is an Associate Professor of the Adult and Higher Education Program at the University of Oklahoma, USA. He received his PhD in Human Resource Education from the University of Illinois at Urbana-Champaign. His primary research interests include: cross-cultural comparison of HRD curriculum, integration of learning and knowledge management, generational studies focusing on knowledge management, and cross-cultural organizational issues impacting workplace performance.

Sewon Kim is an Assistant Professor of Management at SUNY Empire State College, USA. He received his PhD in Human Resource Development from the Texas A&M University. His research interests include coaching and formal mentoring, international management and leadership development, organization behavior and change, and strategic human capital.

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