

Job Satisfaction and Psychometric
Equivalence of a Translation

by

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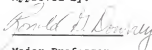
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An Application of the Job Descriptive Index
to Korean Employees: The Measurement of
Job Satisfaction and Psychometric
Equivalence of a Translation

Job satisfaction is one of the most highly researched areas in industrial and organizational psychology (Iaffaldano & Muchinsky, 1985; Locke, 1976). While Locke (1976) has defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience." there has been no consistent agreement on its definition (Grunberg, 1979).

Job satisfaction has been a major topic for research, and the development of an instrument to measure job satisfaction has been the major focus of many of these studies (Locke, 1969; Wanous & Lawler, 1972). Unfortunately, no optimal way to measure job satisfaction has appeared (Grunberg, 1979). Of the diversity of measures, however, the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967), the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969), and the Faces Scale (Kunin, 1955) have represented some of the more popular measures of job satisfaction. Of the above three, the Job descriptive Index has been the most frequently used measure of job satisfaction and subjected to extensive validation attempts (Robinson, Athanasiou, & Head, 1969); Vroom, 1964). According to Yeager (1981), more than 50 percent of recent management articles measuring job satisfaction have employed the JDI. The JDI has been found to have significant convergent and

discriminant validities (Evans, 1969; Gillet & Schwab, 1975; Johnson, Smith, & Tucker, 1982; Smith et al., 1969), as well as good internal consistency and stability (Cook, Hepworth, Wall, & Warr, 1981; Johnson et al., 1982; McCabe, Dalessio, Briga, & Sasaki, 1980; Schneider & Dachler, 1978; Smith et al., 1969).

Three major characteristics of the JDI were identified by Smith et al. First, the JDI is directed toward specific areas of satisfaction rather than global satisfaction. Second, the verbal level required to respond to the JDI is quite low. Finally, an individual is asked to describe his or her work rather than to answer how satisfied he or she is with his or her work. Thus, the JDI has a "job referent" as opposed to the "self-referent" employed in most job satisfaction measures.

The original JDI consisted of five dimensions; work itself, pay, promotion, supervision, and co-workers. Several studies have been done to see if a factor structure of the JDI is stable over a wide variety of occupations and organizations. Smith, Smith, and Rollo (1974) attempted to determine whether the factor structure of the JDI is stable over blacks and whites using the employees of a civil service accounting division (212 whites and 167 blacks) and 110 bank employees (all whites). A principal components analysis resulted in seven factors for each group of subjects. The factor structure for blacks and whites appeared to be the same. The supervision scale split into two dimensions (

quality of supervision and personal characteristics of supervision) in all three groups. The work scale split into a descriptive and a evaluative dimension in only white civil service group. The pay, promotion, and co-workers items loaded consistently in all three groups. The generalizability of these findings could be questioned because of small sample size used.

Based on the results of Smith et al. (1974), Yeager (1981) expected that the co-workers scale might have two factors (peer performance on the job and interpersonal relations with peers) such as the supervision scale. In his study, to overcome the problem with Smith et al.'s study, Yeager gathered data from 2,261 employees in a large software company. A principal components analysis was performed. The results showed that the JDI consisted of nine factors. The pay and promotion scales remained the same as the original JDI. The supervision and co-workers factors split into two factors (interpersonal relations and performance/ability to do their jobs) as expected. Further, the work scale split into three factors: (1) challenging work; (2) frustration with work; and (3) fulfillment in work. Overall, this study replicated the Smith et al.'s (1974) finding concerning the performance and interpersonal relations split in the supervisory factor, and extended it to the co-workers scale, confirming that the JDI contains more than five dimensions.

However, Golembiewski and Yeager (1978) and Jung, Dalessio, and Johnson (1986) provided more support for the five dimension solution than either the seven or nine

dimension solution of the JDI. Golembiewski and Yeager (1978) attempted to test the applicability of the JDI to employees with different demographic characteristics. Five distinct demographic characteristics were identified: (1) management versus non-management; (2) hourly workers versus salaried employees; (3) white versus black; (4) female versus male; and (5) white female versus white male. The JDI appeared to be applicable to various demographic groupings. There were very high coefficients of congruence in all five pairs of demographic divisions for both the five and seven dimension solution. The results also showed that substantially higher congruence in all five pairs of demographic groupings were found for the five dimension scale than the seven dimension scale, indicating that the traditional five dimension solution appears to have a more identical meaning for all persons in each pair of the five demographic divisions.

Jung, Dalessio, and Johnson (1986) examined the stability of the five dimension solution as well as the stability of Yeager's (1981) nine dimension solution over a wide range of organizations and occupations. Data were collected from 11 different groups, ranging in size from 196 to 811 respondents. There were very high congruence coefficients for each of the five dimensions (.86 - .95), indicating the high stability of the five factor solution across various groups of respondents. The nine factor solution also showed high stability in the factor

structure but it was not as good as the five factor solution.

Most studies using the JDI have dealt with the English version, but limited efforts have been made to use a non-English version of the JDI. Several studies have been concerned with the question of the ability to develop a valid translated version of the JDI that can be applied to non-English speaking individuals.

In a study by Katerberg, Smith, and Hoy (1977), 203 bilingual employees (Cuban and Puerto Rican) of a large retail merchandising company in America served as the sample. For a translation procedure, the JDI scales were translated into Puerto Rican Spanish and Cuban Spanish, and then the Spanish versions of the JDI were back translated into English by other translators to investigate the quality of the translation. There was a very satisfactory agreement between the original English version and the backward translation. The data were collected at two different times, separated by a 6 week interval and an analysis of variance (time * language * person) was performed. The results showed an excellent quality of translation for the JDI. Person variance accounted for an average of 63 percent of the variance on the JDI scales. The language variable accounted for nearly zero percent of the variance. Thus the translation of the scales appeared successful. Furthermore, the correlation between the English and Spanish forms at two different times were quite high (.85 to .92), suggesting the consistency with which individuals responded to each language version of the instrument.

McCabe, Dalessio, Briga, and Sasaki (1980) used a multitrait-multimethod approach to investigate the quality of the translation, using data from the Katerberg et al.'s (1977) study. Only 82 persons were included in this study for the analysis. Multitrait-multimethod matrix was conducted for time 1 and time 2 responses, treating the JDI-English and Spanish forms as two different methods. The results showed that convergent and discriminant validities were well supported, again indicating the success of the translation.

The data reported by Katerberg et al. (1977) were reanalyzed by Hulin, Drasgow, and Komocar (1982), using an Item Response theory (IRT) approach for determining the quality of a translation. Hulin et al. argued that "ICCs (item characteristic curves) generated by the same item in two different languages provide direct evidence about the meanings of the items in terms of the underlying latent trait being measured by each version of the scale" (p. 820). The basic design of an analysis was to compare the equality of ICCs for the English version of the JDI items to the corresponding ICCs for the Spanish version. The results showed that only three out of 72 items were biased. That is, three Spanish JDI items had ICCs that were significantly different from the ICCs of the corresponding English JDI items. They concluded that the overall quality of the translation was good, arguing that the determination of bias in these three items could be Type I error.

Although these studies have provided consistent

evidence of the quality of translated versions of the JDI, one basic problem still exists in generalizing these results. These approaches require the use of bilingual people as a sample rather than monolingual people and further require them to complete both versions (English and non-English) of the instrument.

A study by Hulin and Mayer (1986) was designed to solve this problem. Hulin and Mayer used monolingual people to evaluate the quality of a translation of the JDI into Hebrew. The original English version and the Hebrew version of the JDI were administered to 1,632 American employees and 308 Israeli supervisors and upper level workers in Israel, respectively. Item Response Theory analysis was performed with a two parameter model of normal ogive ICCs. The results showed that a total of 21 items appeared to be biased, raising questions about either the quality of the translation or subpopulation differences. Hulin and Mayer argued that the item differences were more attributable to cultural differences than the translation processes. For example, the "highly paid" item from the pay scale was shown to be biased. Since wealth is distributed more equally in Israel than in America, Israelis are more likely than Americans to respond favorably to the item.

In sum, studies of the factor structure of the JDI have provided mixed results. In addition to the original five dimensions, both seven and nine dimension structures of the JDI have been reported in the literature. Studies using a non-English version of the JDI have generally showed that the

overall quality of the translation was excellent and an adequately translated version could be applied to people who speak another language instead of English. One of the problems these studies have in common has been that they generally dealt with bilingual people in the United States (see Hulin & Mayer, 1986 for an exception).

Overall, the literature review shows that little attention has been given to the factor structure of the JDI in cross-culture differences. It also suggests that more studies need to be conducted on translating the JDI into different languages using monolingual people. Furthermore, a lot of cross-culture studies of job satisfaction have been done in the United States, but little has been published about the satisfaction of Korean workers.

The purpose of this study was to investigate the feasibility of using a Korean translation of the JDI to measure job satisfaction in Korea. For this purpose, the psychometric qualities of the Korean version was compared to those of the original version; and the nature of relationship between demographic variables and job satisfaction was compared to that of the original version.

In light of the stated objectives of the study, the following specific questions were investigated. Does the Korean version consist of the same five scales as the English version of the JDI? Are the scale reliabilities and intercorrelations similar to those for the English version? What are the relationships between the job satisfaction

scales and a limited number of demographic and job variables?

Method

Subjects

Data were collected from 515 Korean employees of a medium size pharmaceutical chemical manufacturing company that has approximately 600 total employees and is located in a metropolitan district of Seoul, Korea. A total of 471 respondents were used in this study. Responses were discarded from 44 respondents due to incomplete information. Demographically, the overall sample was: 68 % male; 54 % married; 63 % white collar workers; and an average of 30 years in age. Job tenure for the workers with this company ranged from 1 to 19 years, with an average of 5 years (standard deviation of 4.2). Daily hours worked ranged from 5 to 20 hours, with a mean of 10.3 hours (standard deviation of 1.6).

Instruments

The Job Descriptive Index (JDI) originally developed by Smith, Kendall, and Hulin (1969) and recently revised (1981) was used. The JDI was translated into Korean. The JDI was developed to measure five different aspects of job satisfaction: (1) work itself; (2) pay; (3) promotion; (4) supervision; and (5) co-workers. Further the JDI provides an overall job satisfaction. The overall scale was not used in this study. Each scale consists of a list of adjectives (e.g. stimulating, routine, and etc) describing various aspects of the component dimensions. An individual responds by checking a "yes" if the item describes his or her job,

"no" if the item does not describe his or her job, and "?" if he or she can not decide. In this study, "yes" and "no" were replaced by "O" and "X" for translation convenience, respectively. The JDI consists of a total of 72 items: (1) work itself = 18; (2) pay = 9; (3) promotion = 9; (4) supervision = 18; and (5) co-workers = 18. Items are shown in Appendix A.

In this study, 13 demographic and work related variables were developed and put into a questionnaire form along with the Korean version of the JDI. The 13 variables are as follows: (1) sex; (2) age; (3) marital status; (4) job tenure; (5) educational level; (6) working hours; (7) occupational level; (8) previous work experience; (9) years of service in other job; (10) number of previous job turnover; (11) socio-economic level; (12) a self-rating of job performance; and (13) intention to leave. The actual items are shown in Appendix B.

Procedures

The JDI was first translated into Korean by two Korean students, including the author. The draft Korean version was then translated by a fluent bilingual person back to English to evaluate the quality of the translation. Basically, there was a very satisfactory agreement between the original English version and the English version translated from the Korean version. Minor differences were detected (2 items) and the Korean version was adjusted after a discussion with a

native American. The final Korean version of the JDI, along with the background questionnaire, was sent to Korea. The Korean version of the JDI is shown in Appendix C. The data were collected over several time periods. The employees were asked to assemble in an auditorium of the company at a convenient time. An authorized staff explained the purpose of the questionnaire and asked them to fill out the questionnaire. The respondents were asked to not write their names on the questionnaire, and the authorized staff member also emphasized the confidentiality of their responses.

Analysis

The JDI responses (O, X, and ?) were encoded based on the following rules suggested by Smith et al (1969): (1) agreement with positively-keyed item or disagreement with a negatively-keyed item were scored as 3; (2) agreement with a negatively-keyed item or disagreement with a positively-keyed item were scored as 0; and (3) question mark responses were scored as 1 since such responses were more likely to related to dissatisfaction.

Coefficients of congruence (Harman, 1967) were computed to test the hypothesis that the five JDI dimensions would be found in the Korean version of the JDI. The coefficient of congruence was designed to examine the stability of the number of factors within a particular test across two different samples (Wringley & Neuhaus, 1955). The congruence coefficient technique has been used widely (Jung, Dalessio, & Johnson, 1986) and its stability has been supported by a Monte Carlo study (Korth & Tucker, 1975). A principal

components analysis with the number of factor set to five and varimax rotation was conducted for the Korean sample. The factor loadings used for an American sample were obtained from a study by Jung et al. (1986). Jung et al. examined the stability of the factor structure of the JDI across 11 groups and found a high stability of the traditional five dimensions of the JDI. In this study, one of those groups (i.e., employees of a manufacturing organization in the Midwest, n=506) was selected as a comparison group because of its high equivalence to the Korean sample.

The internal consistency reliabilities of the five scales were estimated using coefficient alpha. Scale score intercorrelations were also performed. Finally, to measure relationship between job satisfaction and various background variables, Pearson product moment correlations were computed between the questionnaire items and the JDI scale scores.

Results

The analysis of the data proceeded in three stages. The first stage was to determine if the scale structure of the JDI was stable for the Korean sample. The second stage was to conduct an item analysis and internal consistency reliability checks. The third stage was to look at the relationship of the JDI scores to the background variables.

A principal component analysis with varimax rotation including all JDI items was conducted to determine the component structure. The number of principal components was initially set to five to test its congruence with the English

version. For the five factor solution, the five components found were; positively worded co-workers items, negatively worded co-workers items, work itself, supervision, and a combined pay and promotion scale (see Appendix A for the principal factor loadings). Given that the original JDI structure was not completely replicated, both a four factor and a six factor solution were computed.

For the four factor solution, the work itself, supervision, and co-workers scales appeared to remain relatively intact whereas the pay and promotion scales combined as one factor. In the six factor solution, the pay and promotion scales separated into two factors, and the co-workers scale continued to split into two factors. The work itself and supervision scales remained intact in the six factor solution. Factor loadings for the four and six factor solutions are also shown in appendix A.

In order to investigate the generalizability of the five factors of the original English version of the JDI to a Korean translation, coefficients of congruence were calculated between the five factors of the original JDI and the four, five, and six factor solutions of the Korean version of the JDI. As Table 1 indicates, the congruence coefficients for the work itself scale were very high across the various solutions (.93, .92, and .93 for the four, five, and six factor solution, respectively), indicating the basic stability of the work itself dimension of the JDI. The supervision factor was also highly congruent across the four, five, and six factor solutions (.81, .89, and .89,

respectively). The supervision factor also had a high coefficient with the co-workers scale in the four factor solution.

Both the pay and promotion factors were highly stable in the six factor solution (.82 for both factors). Although these two factors emerged as a combined factor in the four and five factor solutions, the congruence coefficients between the pay-promotion factor of the Korean version of the JDI and each of the two factors of the original JDI were moderate to low ; .79 with the pay and .57 with the promotion for the four factor solution, and .79 with the pay and .56 with the promotion for the five factor solution).

The congruence coefficient for the co-workers factor was found to be moderate in the four factor solution (.71). When the co-workers factor split into the co-workers factor with positively worded items and the co-workers factor with negatively worded items in the five and six factor solution, each of the two co-workers factors had moderate coefficients with the co-workers dimension of the JDI (.72 and .77 for the five factor solution, and .73 and .79 for the six factor solution).

Overall, the work itself and supervision factors remained consistently across the three types of factor solutions. The co-workers factor remained intact for the four factor solution whereas it split into the two factors for both the five and six factor solution. Both the pay and promotion factors were moderately congruent only for the six

Table 1

Coefficients of Congruence Between the Korean and English
Versions of the JDI

Four Factor Solution

	Supervision	Co-workers	Work	Promotion	Pay
Work	0.43	0.27	0.92	0.39	0.21
Supervision	0.81	0.72	0.38	0.06	0.20
Pay/Promotion	0.15	0.10	0.20	0.57	0.79
Co-workers	0.33	0.71	0.30	0.41	- 0.04

Five Factor Solution

	Supervision	Co-workers	Work	Promotion	Pay
Work	0.39	0.31	0.93	0.36	0.23
Supervision	0.89	0.45	0.39	0.14	0.14
Co-workers(-)	0.48	0.77	0.24	- 0.24	0.17
Pay/Promotion	0.17	0.10	0.20	0.56	0.79
Co-workers(+)	0.31	0.72	0.31	0.42	- 0.04

Table 1 (Continued)

Coefficients of Congruence Between the Korean and English
Versions of the JDI

Six Factor Solution

	Supervision	Co-workers	Work	Promotion	Pay
Work	0.39	0.31	0.93	0.31	0.23
Supervision	0.89	0.44	0.38	0.15	0.14
Co-workers(-)	0.50	0.79	0.28	- 0.09	0.18
Pay	0.15	0.10	0.16	0.37	0.82
Co-workers(+)	0.29	0.73	0.29	0.29	- 0.05
Promotion	0.11	0.04	0.26	0.82	0.22

factor solution while they emerged as single combined factor for the four and five factor solution. Based on these findings, the original five factors were retained for the Korean sample.

An item analysis was conducted for each of the five scales. Several items appeared to be problems in the Korean sample. Overall eight items (out of 72 items) had low item-total correlations ($r < .3$) and, contributed to a lower coefficient alpha estimate of reliability. Those items, by scale, were as follows: Satisfaction with work itself - too much to do; Satisfaction with promotion - opportunity somewhat limited; Satisfaction with pay - income provides luxuries; Satisfaction with supervision - asks my advice and stubborn; and Satisfaction with co-workers - stimulating, narrow-interest, and stubborn. These items were retained in all the analyses of the scales to conduct the congruence of coefficients between the Korean sample and the American sample.

Table 2 shows reliability estimates of the five dimensions of the Korean version of the JDI. The coefficient alpha estimates of internal consistency were moderate to high, ranging from .69 to .90. Intercorrelations among the five dimensions are also reported in Table 2, along with means and standard deviations. The means of the five dimensions indicate that the Korean sample appeared to have more satisfaction with their supervision and co-workers than was found with other three dimensions. The intercorrelations

in Table 2 indicate that the five dimensions had moderate to low correlations with each other (.10 to .50). These values were similar to those found in the English JDI originally reported by Smith et al. (1969).

The relationships between the job satisfaction scales and various background variables were also analyzed in detail. The intercorrelations among the background variables are presented in Table 3. Two background variables - job turnover and self-rating of job performance - appear to be relatively independent of other variables. Self-rating of job performance was significantly correlated with only one of the other twelve variables, while job turnover was significantly related to two other variables. The self-rating of job performance had a significant correlation with sex ($\underline{r} = .12$, $n = 456$, $p < .05$) while job turnover was significantly correlated with age ($\underline{r} = .17$, $n = 168$, $p < .05$) and years of service in other jobs ($\underline{r} = .33$, $n = 178$, $p < .01$). However, the other background variables generally had significant intercorrelations. In particular, sex was significantly intercorrelated with eleven out of twelve variables, the exception was job turnover. Marital status and age were significantly correlated with ten and nine other variables, respectively. Intentions to leave was significantly correlated with seven other variables. Employees who were female, were single, were younger, had less tenure, were more educated, were blue collar, and had less years of service in other jobs had a greater intentions

to leave the company.

Table 4 shows the correlations between the background variables and the JDI scales. Many of the background variables were moderately correlated with the JDI scales. With the exception of three variables (working hours, previous work experience, and self-rating of job performance), other variables were significantly correlated with at least one of the five dimensions of the JDI. The intention to leave variable appeared to have the highest correlations with the JDI scales and it was significantly positively correlated with all five of the JDI dimensions. Employees who reported a lower likelihood of leaving were more satisfied on all five dimensions of the JDI.

Sex, educational level, and years of service in other jobs also had significant relationships with some of the JDI scales. Sex was negatively correlated with four dimensions of the JDI (pay was exception). The correlations indicated that male employees reported higher levels of satisfaction. Four positive correlations were found between educational level and the JDI scales (work itself, promotion, pay, and co-workers). suggesting that the higher the employees' education, the greater the employees' satisfaction. Married employees reported significantly higher levels of satisfaction with the work itself and their supervision. Older employees had higher levels of satisfaction with work itself, promotion, and supervision. Also, employees who belong to a high socioeconomic level were more satisfied with promotion and pay.

Table 2

Means, Standard Deviations, and Intercorrelations Among the Korean Version of the JDI Scales

	Mean	S.D	1	2	3	4	5
1. Work itself	22.84	13.73	(.90) **				
2. Promotion	6.68	4.96	.33 **	(.69) **			
3. Pay	7.02	6.15	.25 **	.36 **	(.77) **		
4. Supervision	34.50	11.30	.42 **	.19 *	.14 *	(.85) **	
5. Co-workers	37.53	10.69	.28	.11	.10	.50	(.84)

Note. Values in parentheses are coefficient alpha reliability estimates.

Sample sizes range from 433 to 455 due to missing data.

* $\underline{p} < .05$

** $\underline{p} < .001$

1. Sex	1.32	0.47	-	**															
2. Marital Status	1.46	0.50	64	-	**	**													
3. Age	29.91	6.77	66	-69	-	**	**	**											
4. Tenure	5.07	4.2	-36	-54	74	-	**	*	**										
5. Edu. Level	3.27	0.77	-24	-11	10	-15	-	**	**										
6. Work Hrs	10.31	1.63	-34	-12	09	09	-06	-	**	**	**	**	**						
7. Occup. Level	1.37	0.48	-20	-13	19	05	45	-02	-	*									
8. Pre. Work	1.56	0.50	09	13	-07	07	00	01	-10	-									
9. Turnover	1.35	0.81	-07	-07	17	-05	-11	06	-08	.	-	**							
10. Other Job	3.13	3.21	-27	-27	58	09	13	01	13	.	33	-							
11. Socio-eco Level	3.12	0.93	25	25	-21	-16	24	-14	15	01	02	-08	-						
12. Performance	3.38	0.83	-12	-06	01	-05	07	00	09	-05	07	-09	01	-					
13. Intent to Leave	3.05	1.25	-31	-26	30	22	13	08	16	-04	-02	17	02	01					

Note. Decimal points are omitted. Sex (1=male, 2=female); Marital Status (1=married, 2=single); Edu. Level (1=elementary school, 6=graduate degree); Occup. Level (1=blue collar, 2=white collar); Pre. Work=Previous Work Experience (1=yes, 2=no); Turnover=Number of Job Turnover; Other Job=Years of Service in Other Jobs; Socio-eco Level (1=lower-lower class, 5=upper class); Performance=Self-rating of Job Performance (1=outstanding, 5=unsatisfactory); and Intent to Leave (1=definitely leave, 5=definitely not leaving)

* $P < .05$ ** $P < .01$

These correlations between background variables and the JDI scales were investigated in a slightly different way by splitting the total sample into two occupational level groups; blue and white collar workers. Table 5 and 6 show correlations between background variables and the JDI scales for the blue and white collar groups. Occupational level appeared to act as a moderator variable. Major differences in the correlations between the JDI scales and the background variables were found between the blue and white collar samples. In the blue collar sample, educational level was not significantly correlated with any of the five dimensions of the JDI whereas educational level was significantly correlated with all five dimensions of the JDI in the white collar sample.

There were also many differences in correlations between the JDI scales and the job tenure and number of working hours variables for the two samples. That is, in the white collar sample, there were no significant correlations between job tenure and any of the five dimensions of the JDI. In the blue collar sample, significant correlations with work itself and supervision were found with job tenure. While the number of working hours had a significant correlation with the JDI work itself and promotion scales for the blue collar sample, in the white collar sample the sole significant correlation was with the JDI pay scale.

Finally, regression analyses were conducted to examine the combined predictive power of the background variables in

Table 4

Correlations Between Background Variables and the JDI Scales

	Sex Status	Marital	Age	Ten- ure	Edu. Level	Work Hrs	Occup. Level	Pre. Work	Turn- Over	Other Job	Socio-eco Level	Perfo- mance	Intent Leave
Work	** -45	** -39	** 49	** 29	** 31	** 02	** 38	-06	01	** 30	01	-04	** 43
Promotion	* 10	-09	** 15	** 04	** 13	** 09	06	08	-08	** 18	** 13	-01	** 19
Pay	02	-01	** 07	** 01	** 14	-03	06	-01	14	** 24	18	03	** 20
Supervision	** -21	-21	** 24	** 16	** 09	-01	05	03	04	* 19	-01	06	** 26
Co-workers	** -22	-09	09	04	13	01	03	02	-02	06	04	-02	** 22

Note. Decimal points are omitted. Tenure = Job Tenure; Edu. Level = Educational Level; Occup. Level = Occupational Level; Pre. Work = Previous Work Experience; Turnover = Number of Job Turnover; Other Job = Years of Service in Other Job; Socio-eco Level = Socio-economic Level; Performance = Self-rating of Job Performance; Intent Leave = Intent to Leave. See Table 3 for items of each variable.

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

accounting for employees' satisfaction. This was done separately for each of the five dimensions of the JDI. The "job tenure" and "years of service in other job" variables were excluded as predictor variables due to the smaller of individuals who answered these variables. The intention to leave variable was also excluded because it has been shown that intention to leave appears to be a consequence of job satisfaction rather than a predictor of job satisfaction (Mobley, 1977). A forward selection solution was used for these analyses and the results are presented in Table 7.

Age was the first to enter into the prediction equations for three of the JDI scales; work itself, promotion, and supervision scales and it was the second and the third for the pay and co-workers scale, respectively. Sex was the first variable to enter for the JDI co-workers scale while for the pay scale, socio-economic level entered first. Sex and socio-economic level entered into the regression equations for four dimensions of the JDI (the exception was promotion and supervision, respectively) while a marital status did not enter into any of the five equations. Each of the five dimensions of the JDI was explained by a different set of background variables.

For the Korean employees, greater levels of satisfaction with work itself appeared to be found in people who; were older, were white collar, had a higher level of education, were male, reported they performed well, were in a high socio-economic level, and reported working fewer hours.

Table 5

Correlations Between Background Variables and the JDI Scales in the Blue Collar Sample

	Sex	Marital	Age	Ten- ure	Edu- Level	Work Hrs	Turn- over	Other Job	Socio-eco Level	Perfo- mance	Intent to Leave			
Work	** -44	** -40	** 52	** 41	** -01	*	13	** -01	11	38	*	13	-07	** 43
Promotion	-10	-02	05	00	-03	16	** 15	*	-01	-07	*	09	-02	15
Pay	07	01	05	07	-02	03	-08	19	22	22	**	16	02	** 20
Supervision	-20	-22	29	27	-08	-04	09	05	27	27	**	-08	06	** 27
Co-workers	-22	-13	11	10	-03	-02	04	-06	14	14	00	00	-01	** 23

Note. Decimal points are omitted. See Table 3 for items of each variable.

* $\underline{p} < .05$ ** $\underline{p} < .01$

Table 6

Correlations Between Background Variables and the JDI Scales in the White Collar Sample

	Sex	Marital	Age	Ten- ure	Edu- Level	Work Hrs	Pre- Work	Turn- over	Other Job	Socio-eco Level	Perfo- mance	Intent to Leave
Work	** -35	** -31	** 36	10	34	** -08	-02	-01	29	* 05	-05	** 38
Promotion	-07	* -19	** 28	12	21	** -08	-01	-16	38	** 20	00	** 23
Pay	-03	-02	09	-07	21	** -16	09	03	33	** 26	03	** 22
Supervision	** -23	-20	16	-02	21	** 05	-04	06	17	07	09	** 25
Co-workers	** -22	00	02	-05	22	** 08	-01	04	-04	10	-04	* 18

Note. Decimal points are omitted. See Table 3 for items of each background variable.

* $\underline{p} < .05$ ** $\underline{p} < .01$

Employees who were older, in a higher socio-economic level, older, lower in job tenure, less experienced with other jobs, and working more hours were more satisfied with promotion. The socio-economic level, age, educational level, and sex were variables which contributed significant variance to the prediction of pay satisfaction. Satisfaction with supervision was predicted by age and sex. Greater levels of satisfaction with co-workers were found in employees who were male, in a high socio-economic level, younger, and working fewer hours.

In summary, the job satisfaction of Korean employees appeared to be higher for those who were older, male, in a high socio-economic level, working fewer hours, and well-educated (Note: the two exceptions were the relationships of working hours to satisfaction with promotion and age to satisfaction with co-workers).

Table 8 and 9 present separate predictions of the JDI scales for the blue and white collar samples. Given the differences in the zero-order correlations between background variables and the JDI scale, there were some differences in the regression equations for the two samples.

A major difference was found for the JDI supervision scale. In the blue collar sample, the employees' satisfaction with supervision was predicted by age, working hours, and previous work experience whereas it was explained by sex and educational level in the white collar sample. Another major difference was that while educational level was included in three equations in the white collar sample, it was not included in any of the five dimensions of the JDI in the blue

Table 7

Regression Analyses of the JDI Scales on Background Variables

Work itself

Variable	R ^a	Final Beta
Age	.49	.303
Occupational level	.57	.228
Educational level	.59	.108
Sex	.60	-.228
Self-rating of performance	.60	-.092
Socio-economic level	.61	.067
Working hours	.61 ^b	-.063

Promotion

Variables	R ^a	Final Beta
Age	.15	.327
Socio-economic level	.23	.185
Tenure	.25	-.183
Previous work experience	.27	.106
Working hours	.29 ^b	.098

Table 7 (Continued)

Regression Analyses of the JDI Scales on Background Variables

Pay

Variable	R ^a	Final Beta
Socio-economic level	.18	.165
Age	.22	.175
Educational level	.23	.108
Sex	.25 ^b	.120

Supervision

Variable	R ^a	Final Beta
Age	.24 ^b	.175
Sex	.25	-.093

Co-workers

Variable	R ^a	Final Beta
Sex	.22	-.347
Socio-economic level	.24	.090
Age	.25 ^b	-.114
Working hours	.26	-.087

Note. Beta is the standardized regression coefficient.

Forward solution was used for this analysis.

a R when variable was entered into the equation.

b Final R (no further variable contributed significant variance)

Table 8

Regression Analyses of the JDI Scales on Background Variables
in the Blue Collar Sample

Work itself

Variable	R ^a	Final Beta
Age	.51	.390
Sex	.53	-.178
Self-rating of performance	.54 ^b	-.100

Promotion

Variable	R ^a	Final Beta
Working hours	.19	.194
Previous work experience	.23	.142
Socio-economic level	.26 ^b	.121

Pay

Variable	R ^a	Final Beta
Socio-economic level	.16	.173
Age	.20	.232
Sex	.23 ^b	.174

Table 8 (Continued)

Regression Analyses of the JDI Scales on Background Variables
in the Blue Collar Sample

Supervision

Variable	R ^a	Final Beta
Age	.29	.317
Working hours	.31	-.117
Previous work experience	.32 ^b	.100

Co-workers

Variable	R ^a	Final Beta
Sex	.22	-.282
Working hours	.25 ^b	-.144

Note. Beta is the standardized regression coefficient.

Forward solution was used for this analysis.

a R when variable was entered into the equation.

b Final R (no further variable contributed significant variance)

Table 9

Regression Analyses of the JDI Scales on Background Variables
in the White Collar Sample

Work itself

Variable	R ^a	Final Beta
Age	.36	.151
Educational level	.46	.265
Sex	.48 ^b	-.139

Promotion

Variable	R ^a	Final Beta
Age	.28	.320
Socio-economic level	.38 ^b	.249

Pay

Variable	R ^a	Final Beta
Socio-economic level	.26	.261
Age	.29	.233
Tenure	.33	-.189
Working hours	.35 ^b	-.117

Table 9 (Continued)

Regression Analyses of the JDI Scales on Background Variables
in the White Collar SampleSupervision

Variable	R ^a	Final Beta
Sex	.23	-.184
Educational level	.27 ^b	-.152

Co-workers

Variable	R ^a	Final Beta
Educational level	.22	.165
Sex	.27	-.281
Marital Status	.31 ^b	.190

Note. Beta is the standardized regression coefficient.

Forward solution was used for this analysis.

a R when variable was entered into the equation

b Final R (no further variable contributed significant variance)

collar sample.

In general, in the blue collar sample, the job satisfaction of Korean employees appeared to be higher for those who were older, males, working fewer hours, less experienced with other jobs, and in a high socio-economic level. For the white collar sample, employees who were well-educated, older, male, and in a high socio-economic level appeared to be more satisfied with their jobs.

In summary, the five dimensions of the JDI appeared to show a moderate level of generalization in the Korean sample and the five scales showed moderate to high levels of internal consistency levels of reliability. Also, occupational level appeared to act as a moderator variable. That is, differences in the correlations between the JDI and background variables were found for the blue and white collar samples.

Discussion

The present study shows that although there are some limitations, the JDI scales appear to be measuring a similar set of constructs in the Korean sample. Each of the five dimensions of the JDI emerged at least once as a single factor over the four, five, and six factor solutions for the Korean version of the JDI. This was especially true for the work itself and supervision scales, which remained intact over the three different factor solutions. However, a five factor solution may not be the best representation of the JDI structure. Rather, a six factor solution appeared to be more adequate for the Korean version of the JDI. In the six factor

solution four factors (work itself, supervision, pay, and promotion) remained intact and only the co-worker scale split into two factors.

As with previous studies (e.g. Hulin & Mayer, 1986) the question must be asked as to the origin of these results; translation procedures or cultural differences between the United States and Korea. Although this study was not specifically intended to investigate the quality of the translation, and thus no direct evidence can be shown to demonstrate the quality of the translation, the translation procedures alone appear to not be adequate to explain these results. A backward translation procedure was used in this study and showed a very satisfactory degree of agreement between the original English version and the backward translated English version. As discussed in the introduction, research has shown that studies using the backward translation procedure resulted in a good quality of translations (Hulin, Drasgow, & Komocar, 1982; Hulin & Mayer, 1980; Katerberg, Smith, & Hoy, 1977; McCabe, Dalessio, Briga, & Sasaki, 1980). Some other mechanisms than the quality of the translation appear to be at work.

Cultural differences between the United States and Korea appear to be a potential factor to produce these results. The pay and promotion factors have been stable over a number of studies conducted on the factor structure of the JDI in the U. S. (Smith, Smith, & Rollo, 1974; Jung, Dalessio, & Johnson, 1986; Yeager, 1981). In this study, the pay and

promotion scales emerged as a combined pay-promotion factor for both the four and five factor solution and only in the six factor solution these scales separated into two factors. There are two plausible explanations for the pay and promotion factors appearing as one. First, pay and promotion are strongly related in Korea. In most Korean organizations, few pay differences are found between employees at the same job level regardless of his or her ability. Thus, Korean employees may have stronger feeling that they need a promotion to have a higher salary, therefore, not distinguish between the pay and promotion scales. A second and potentially more plausible explanation is that the splitting of the co-workers scale (discussed below) force the pay and promotion scales to combine.

The splitting of the co-workers scale into two factors in this study is consistent with Yeager's (1981) findings. In the nine factor solution by Yeager, the co-workers scale split into the positively worded co-workers items and negatively worded co-workers items. Considering the fact that the co-workers scale split into the two factors in the nine factor solution by Yeager, the same split of the co-workers scale for the five and six factor solution in this study may indicate that Korean employees are more co-worker oriented than American employees.

An item analysis of the Korean version of the JDI found generally high levels of internal consistency reliability for each of the five dimensions. Means for the five factors suggested that Korean employees had a very low level of

satisfaction with both pay and promotion. This result appears to reflect the reality of low salary for Korean employees (especially the blue collar workers), long working hours (average 10.3 hrs/day), and an inadequate promotion policy.

On the one hand, the results of the intercorrelations between and among the background variables and the JDI scales demonstrated the similarities that exist between Korean employees and American employees concerning those relationships. The correlations between the intention to leave variable and the other background variables found that individuals who are younger, have less tenure, and have more education are more likely to leave the company (Parasuraman & Futrell, 1983). With the exception of education, this was also the case for the Korean sample.

The most consistent relationship found in the Korean sample between the background and job variables and the JDI scales was for intention to leave. Employees with a stated intention not to leave the company were significantly satisfied on all five JDI scales. Similarly strong relationships have been found between the intention to leave variable and job satisfaction in American samples (Bluedorn, 1982; Parasuraman & Futrell, 1983; Price & Mueller, 1981; Thompson & Terpening, 1983). Another similar result was found in the relationship between job satisfaction and job performance. Generally, low correlations between job satisfaction and job performance have been consistently reported in the U. S. (Iaffaldano & Muchinsky, 1985; Vroom,

1964). No significant correlation was also found between self-rating of job performance and the five dimensions of the JDI in the Korean sample.

For the Korean employees, job satisfaction increased as age increased. Similar positive linear relationships between age and job satisfaction also have been reported for American employees (Gibson & Klein; Hulin & Smith, 1965; Lee & Wilbur, 1985). There were also two significant positive correlations between job tenure and the JDI scales in this study. These results are consistent with Hulin and Smith (1965) who reported that as job tenure increased, employees were better able to adjust their expectations to the job environment and thereby predict and avoid frustration, and have higher job satisfaction. Korean male employees were significantly more satisfied with four of the five JDI dimensions, pay was the lone exception. There have been inconsistent findings on the relationships between sex and job satisfaction for American workers. Consistent with the Korean sample, Hulin and Smith (1964) reported that males were generally more satisfied with their jobs than females.

Earlier, Herzberg, Mausner, Peterson, and Capwell (1957) reported that the higher the occupational level, the higher morale. Hulin and Smith (1965) and Mottaz (1986) also found a positive relationship between job satisfaction and occupational level. In this study, similar results appeared for the JDI work itself scale. The white collar sample was more satisfied.

The true relationship between education and job

satisfaction has been the source of controversy in the U. S. literature. One view is that educational level tends to increase job satisfaction by increasing both the intrinsic and extrinsic rewards of work (Glenn & Weave, 1982; Quinn & Mandilovitch, 1975). However, an alternate view receiving support from the literature suggests that education may decrease satisfaction with work by increasing job expectations and aspirations that may not be fully fulfilled in the work situation (Klein & Maher, 1966; Vollmer & Kinney, 1955; Mottaz, 1984). The results in this study were consistent with the first point of view. Employees at higher levels of education were significantly more satisfied on four dimensions of the JDI (the exception was satisfaction with supervision).

There is a complicating factor in the above issue. When correlations between the background variables and the JDI scales were reanalyzed in terms of the two different levels of occupation, there were no significant correlations between educational level and the five dimensions of the JDI in the blue collar sample. This result was consistent with Wright and Hamilton's (1975) finding which education was unrelated to job satisfaction among blue-collar workers. In the white collar sample, however, education had significant positive correlations with all of five dimensions of the JDI. This result appears to reflect one aspect of a traditional Korean culture. In Korea, promotion in white collar workers is more likely to depend upon an employees' educational level, and

thus employees with higher levels of education tend to be more satisfied with their job having more intrinsic and extrinsic rewards of work.

The regression analyses of the background variables on the JDI scales found that the age was entered into the equations for all five dimensions of the JDI. Age was also one of the stronger predictors in the two different occupational groups. In general since differences in correlations between the background variables and the JDI scales existed between the blue and white collar samples, different background variables were entered into the equations for all five JDI scales.

Several limitations should be noted in this study. First, since a revised JDI form (1985) was used in this study, the items were not exactly the same as those used in the original JDI. There were seven items which differed between the two JDI forms. Another limitation was that since the sample was taken from one Korean company in this study, the generalizability of the results may be questioned. Future study should be conducted with samples from a variety of organizations to ensure the factor structure of the Korean version of the JDI. Also, as Hulin and Mayer (1986) pointed out, even excellent backward translations do not automatically result in the equivalence of two language versions, more attention should be given to a careful item analysis such as Item Response Theory prior to the comparison of the factor structure between the original JDI and the Korean version of the JDI.

In summary, the present study has shown that the JDI scales appeared to be generalizable to the Korean sample. The work itself and supervision scales remained consistent over the four, five, and six factor solutions. An interesting finding was that the six factor solution seemed to be more adequate for the Korean sample than the five factor solution. While cultural differences between Korea and the United States are more likely to be a plausible explanation for these results, it is not clear why the co-workers scale split into two factors over the five and six factor solutions. Future study should be conducted to see if the same results are repeated. Also, similarities were found between Korean workers and American workers in the relationships among and between the background and job related variables and the JDI scales. In conclusion, this study provides empirical evidence for the generalizability of the JDI to a different culture.

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Appendix A

JDI Factor Loadings for Korean Sample

JDI Factor Loadings (Four Factor Solution)

Items	Factors			
	I	II	III	IV
WORK ITSELF				
Fascinating	67	-08	11	12
Routine	55	15	-02	00
Satisfying	65	12	18	10
Boring	63	28	11	-03
Good	71	26	07	-06
Creative	71	07	-02	22
Respected	51	-02	16	17
Uncomfortable	48	27	12	-06
Pleasant	70	13	14	08
Useful	69	09	09	05
Tiring	60	21	16	-02
Healthful	42	08	18	06
Challenging	68	09	-02	08
Too much to do	-06	10	26	-12
Frustrating	47	25	06	-14
Simple	53	19	-05	02
Repetitive	41	01	03	-04
Gives sense of accomplishment	73	08	-06	11
PAY				
Income adequate for normal expenses	02	05	62	-07
Fair	03	05	60	04
Barely live on income	13	06	51	-11

Continued

JDI Factor Loadings (Four Factor Solution)

Items	Factors			
	I	II	III	IV
Bad	10	13	64	-09
Income provides luxuries	11	-21	16	03
Insecure	18	11	51	-10
Less than I deserve	04	07	65	05
Well paid	06	-02	59	12
Underpaid	-04	10	66	-01
PROMOTION				
Good opportunities for promotion	28	-17	26	20
Opportunity somewhat limited	-06	-06	16	-13
Promotion on ability	21	-05	28	22
Dead-end job	31	11	36	11
Good chance for promotion	41	-12	26	27
Unfair promotion policy	10	21	44	-03
Infrequent promotions	06	-08	45	07
Regular promotions	06	-08	28	26
Fairly good chance for promotion	26	-25	41	27
SUPERVISION				
Asks my advice	28	08	-06	25
Hard to please	23	43	16	08
Impolite	14	56	04	-05
Praises good work	24	37	-02	21
Tactful	23	49	05	16

Continued

JDI Factor Loadings (Four Factor Solution)

Items	Factors			
	I	II	III	IV
Influential	12	35	-01	09
Up-to-date	22	33	-03	22
Doesn't supervise enough	03	55	03	08
Has favorites	22	55	02	04
Tells me where I stand	29	28	04	20
Annoying	19	59	03	-08
Stubborn	11	16	00	-02
Knows job well	05	41	02	12
Bad	13	68	07	-04
Intelligent	24	08	-06	35
Poor planner	17	50	08	03
Around when needed	16	38	-02	21
Lazy	16	57	-03	-04
CO-WORKERS				
Stimulating	30	04	-03	32
Boring	12	55	08	20
Slow	-20	43	13	38
Helpful	11	30	03	54
Stupid	-13	61	11	13
Responsible	-04	31	04	66
Fast	-08	12	00	62
Intelligent	09	07	-06	51

Continued

JDI Factor Loadings (Four Factor Solution)

Items	Factors			
	I	II	III	IV
Easy to make enemies	-04	52	-07	11
Talk too much	05	48	07	16
Smart	15	30	-03	52
Lazy	-03	50	05	27
Unpleasant	08	60	00	18
Gossipy	04	47	-01	10
Active	-02	31	06	67
Narrow interests	05	30	09	08
Loyal	01	29	-02	57
Stubborn	-04	27	01	-25

Note. Decimal points are omitted.

JDI Factor Loadings (Five Factor Solution)

Items	Factors				
	I	II	III	IV	V
WORK ITSELF					
Fascinating	66	04	-14	10	12
Routine	56	12	09	-02	00
Satisfying	66	09	07	18	11
Boring	65	18	20	10	-02
Good	72	19	16	06	-06
Creative	70	14	-03	-03	23
Respected	48	10	-12	15	18
Uncomfortable	53	05	30	12	-05
Pleasant	69	15	02	14	09
Useful	71	05	06	08	06
Tiring	63	08	20	16	-01
Healthful	41	12	-02	18	06
Challenging	68	10	02	-03	08
Too much to do	-05	03	10	26	-12
Frustrating	52	06	28	06	-14
Simple	54	14	12	-05	02
Repetitive	43	-01	02	03	-03
Gives sense of accomplishment	71	16	-05	-06	11
PAY					
Income adequate for normal expenses	02	06	00	62	-07
Fair	02	08	-02	61	05
Barely live on income	15	-02	09	51	-10

Continued

JDI Factor Loadings (Five Factor Solution)

Items	Factors				
	I	II	III	IV	V
Bad	13	03	14	64	-08
Income provides luxuries	09	-08	-22	16	03
Insecure	21	01	13	51	-09
Less than I deserve	04	08	01	65	05
Well paid	03	07	-10	59	12
Underpaid	-03	04	09	66	-01
PROMOTION					
Good opportunities for promotion	24	02	-26	26	20
Opportunity somewhat limited	-06	-06	-03	16	-13
Promotion on ability	15	20	-24	28	22
Dead-end job	32	09	06	36	11
Good chance for promotion	39	-01	-16	26	28
Unfair promotion policy	12	09	19	44	-02
Infrequent promotions	06	-04	-08	45	07
Regular promotions	04	04	-14	28	26
Fairly good chance for promotion	24	-08	-27	40	28
SUPERVISION					
Asks my advice	24	21	-08	-06	25
Hard to please	20	43	19	17	07
Impolite	11	50	30	05	-06
Praises good work	18	47	07	-01	20
Tactful	12	76	-02	07	14

Continued

JDI Factor Loadings (Five Factor Solution)

Items	Factors				
	I	II	III	IV	V
Influential	04	56	-03	01	08
Up-to-date	16	47	02	-02	21
Doesn't supervise enough	01	48	31	04	07
Has favorites	18	54	26	03	04
Tells me where I stand	21	50	-08	05	19
Annoying	15	59	26	05	-09
Stubborn	14	-01	23	00	-02
Knows job well	-03	56	05	03	11
Bad	10	58	39	08	-05
Intelligent	19	24	-11	-06	34
Poor planner	10	61	12	09	02
Around when needed	08	56	00	-01	20
Lazy	11	61	22	-01	-06
CO-WORKERS					
Stimulating	30	06	-01	-04	32
Boring	17	21	56	08	20
Slow	-15	11	49	13	38
Helpful	12	17	25	03	54
Stupid	-07	20	64	12	13
Responsible	01	06	37	03	66
Fast	-08	06	12	00	62
Intelligent	08	07	03	-07	51

Continued

JDI Factor Loadings (Five Factor Solution)

Items	Factors				
	I	II	III	IV	V
Easy to make enemies	01	16	57	-07	11
Talk too much	12	09	56	07	16
Smart	15	24	20	-03	52
Lazy	02	17	52	05	27
Unpleasant	15	19	64	00	18
Gossipy	13	04	60	-02	11
Active	00	12	32	06	67
Narrow interests	10	07	34	09	08
Loyal	05	08	33	-02	58
Stubborn	01	04	32	01	-25

Note. Decimal points are omitted.

JDI Factor Loadings (Six Factor Solution)

Items	Factors					
	I	II	III	IV	V	VI
WORK ITSELF						
Fascinating	64	03	-10	05	10	21
Routine	56	11	09	-03	00	03
Satisfying	65	09	09	16	10	13
Boring	66	17	19	12	-01	00
Good	73	19	14	10	-03	-05
Creative	69	14	-01	-05	22	13
Respected	48	09	-10	12	16	17
Uncomfortable	53	05	30	12	-05	-01
Pleasant	69	15	03	13	09	11
Useful	71	04	06	10	08	03
Tiring	63	08	20	17	00	02
Healthful	41	12	-02	18	07	06
Challenging	69	09	-01	02	12	-06
Too much to do	-07	04	15	18	-17	17
Frustrating	52	06	29	05	-14	00
Simple	54	14	12	-04	03	00
Repetitive	41	-01	05	-02	-06	12
Gives sense of accomplishment	72	15	-05	-05	12	03
PAY						
Income adequate for normal expenses	04	04	-05	69	-02	-01
Fair	03	07	-03	63	07	10
Barely live on income	17	-03	04	57	-06	-03

Continued

JDI Factor Loadings (Six Factor Solution)

Items	Factors					
	I	II	III	IV	V	VI
Bad	14	02	11	67	-06	05
Income provides luxuries	05	-06	-11	00	-07	39
Insecure	22	00	12	52	-08	06
Less than I deserve	04	07	-01	67	07	11
Well paid	04	06	-11	61	13	13
Underpaid	-02	03	07	68	01	08
PROMOTION						
Good opportunities for promotion	16	05	-05	-03	02	72
Opportunity somewhat limited	-11	-04	10	-02	-25	37
Promotion on ability	12	20	-16	16	15	37
Dead-end job	28	09	14	25	04	33
Good chance for promotion	33	01	01	03	13	60
Unfair promotion policy	10	10	24	38	-07	21
Infrequent promotions	-02	-02	11	19	-10	65
Regular promotions	00	04	-05	16	18	37
Fairly good chance for promotion	17	-06	-11	18	13	64
SUPERVISION						
Asks my advice	26	20	-11	-01	29	-05
Hard to please	17	44	27	07	01	24
Impolite	11	50	30	05	-06	-03
Praises good work	18	47	09	-03	19	06
Tactful	13	75	-02	07	15	04

Continued

JDI Factor Loadings (Six Factor Solution)

Items	Factors					
	I	II	III	IV	V	VI
Influential	05	56	-06	05	11	-07
Up-to-date	15	47	05	-06	19	11
Doesn't supervise enough	00	48	31	03	07	-01
Has favorites	18	54	27	01	02	02
Tells me where I stand	22	50	-10	07	21	02
Annoying	14	59	27	03	-10	00
Stubborn	14	-01	23	-01	-03	-01
Knows job well	-03	56	06	03	10	02
Bad	11	58	37	11	-03	-10
Intelligent	20	24	-12	-03	36	01
Poor planner	10	61	13	09	01	02
Around when needed	09	56	-02	02	22	-03
Lazy	11	61	21	00	-05	-06
CO-WORKERS						
Stimulating	31	05	-02	-01	34	-01
Boring	16	21	59	04	17	05
Slow	-15	11	48	13	38	-01
Helpful	11	17	27	01	52	09
Stupid	-05	20	59	18	17	-19
Responsible	00	05	37	05	67	01
Fast	-06	05	08	06	66	-06
Intelligent	08	07	03	-06	52	04

Continued

JDI Factor Loadings (Six Factor Solution)

Items	Factors					
	I	II	III	IV	V	VI
Easy to make enemies	01	16	56	-06	10	-10
Talk too much	09	10	62	00	11	09
Smart	15	23	18	00	53	-01
Lazy	03	16	51	07	28	-07
Unpleasant	14	19	65	-01	17	-04
Gossipy	11	05	64	-07	07	03
Active	-01	12	33	05	66	08
Narrow interests	09	07	36	06	06	03
Loyal	04	07	33	-02	58	02
Stubborn	01	04	30	04	-23	-13

Note. Decimal points are omitted.

Appendix B

The questionnaire of background variables

This questionnaire is intended to measure your satisfaction with your work. Please answer all questions as honestly and as completely as you can. Your name will not be on any of this material and we will not release any individual information. Before you start on the JDI, please check (v) the correct response or write in the information requested for each of the following questions.

1. What is your gender?
 (1) male (2) female
2. What is your present marital status?
 (1) married (2) single
3. How old are you? yrs
4. How long have you worked for this company? yrs mths
5. What is your highest completed level of education?
 (1) elementary school (4) some college
 (2) junior high school (5) college degree
 (3) high school (6) graduate degree
6. How many hours do you work a day? hrs
7. Which category does your job belong?
 (1) white collar (2) blue collar
8. Do you have any previous work experience?
 (1) yes (2) no
9. If you answer "yes" above question, how many times did you change your job in the past? times
10. What is your total number of years worked in other job?
 yrs

(go to next page)

11. Which social class would you say your family belong?
- (1) lower-lower class (4) upper-middle class
 (2) upper-lower class (5) upper class
 (3) lower-middle class
12. How would you rate your current work performance?
- (1) outstanding (4) needs improvement
 (2) exceeds expectation (5) unsatisfactory
 (3) satisfactory
13. Do you expect to leave the company in the near future?
- (1) I will definitely leave in the near future.
 (2) The chances are good that I will leave.
 (3) The situation is uncertain.
 (4) The chances are very slight that I will leave.
 (5) I will definitely not leave in the near future.

Appendix C

The Korean Version of the JDI

직 무 만 족 질 문 서

이 설문지는 여러분의 작업에 대한 만족도를 측정하기 위한 것입니다.
이결과를 연구 목적으로 위해서 사용될 것입니다.

여러분의 이름은 요구되지 않으며 어떠한 개인 정보도 누설되지 않을 것
입니다. 만약 여러분께서 이 설문지에 응답하기를 원하지 않으면 언제
라도 그만둘 수가 있습니다. 여러분의 참여는 어디까지나 자발적이며
참여하지 않음에 대한 어떠한 처벌도 따르지 않을 것입니다.

여러분께서 위의 사항들을 이해하고 이 연구에 참여하기로 결정했으면
가능한 모든 질문에 정직하고 완전하게 답하시기 바랍니다.

만약 여러분께서 의문사항이 있으면 총무과로 문의하여 주시기 바랍니다.
여러분의 도움에 감사를 드립니다.

아래 질문들은 여러분의 개인적인 배경을 알기 위한 것입니다.
 각 질문의 맞는 번호 옆에 (V) 표를 하시거나 요구되는 내용을 적으시기
 바랍니다.

1. 당신의 성별은?

____(1) 남성 ____ (2) 여성

2. 당신의 신분은?

____(1) 기혼 ____ (2) 독신

3. 당신의 연령은? ____살

4. 당신은 몇년동안 이 회사에서 일하셨습니까? ____년 ____개월

6. 당신의 학력은?

____(1) 국민학교 졸업 ____ (4) 전문학교 졸업

____(2) 중학교 졸업 ____ (5) 대학교 졸업

____(3) 고등학교 졸업 ____ (6) 대학원 졸업

7. 당신은 하루에 몇시간 정도 일하십니까? ____시간

8. 당신의 현 직종은 어디에 속합니까?

____(1) 생산직 ____ (2) 관리직

9. 당신은 이 회사에 오기전 다른 회사에서 일하신 적이 있습니까?

____(1) 그렇다 ____ (2) 아니다

당신께서 "아니다" 라고 대답하셨으면 10,11번 질문에는 대답하실 필요
 없습니다. 12번으로 넘어가시기 바랍니다.

10. 만약 당신께서 위의 질문에 "그렇다" 라고 대답하셨으면 당신은 과거에
 몇번이나 회사를 옮기셨습니까? ____번

11. 또 당신은 다른 회사에서 몇년동안 일하셨습니까? ____년

12. 당신의 가정은 어느 계층에 속한다고 생각하십니까?

- ___(1) 상류층 ___(4) 하·상류층
___(2) 중·상류층 ___(5) 최하류층
___(3) 중·하류층

13. 만약 당신께서 당신의 현 작업성적을 평가하신다면 어떻게 평가하시겠습니까?

- ___(1) 대단히 뛰어나다. ___(4) 향상될 필요가 있다.
___(2) 기대 이상으로 잘하고 있다. ___(5) 불만족스럽다.
___(3) 만족할만하다.

14. 당신의 종교는

- ___(1) 불교 ___(4) 기타
___(2) 기독교 ___(5) 없음
___(3) 천주교

15. 당신께서는 가까운 장래에 이 회사를 떠나실 생각이십니까?

- ___(1) 가까운 장래에 반드시 떠날 것이다.
___(2) 떠날 가능성이 높다.
___(3) 불확실하다.
___(4) 떠날 가능성이 아주 적게 있다.
___(5) 가까운 장래에 안떠날 것이다.

당신이 현재 하고있는 일에 대하여 생각해 보십시오.

다음의 낱말들이 당신이 하고있는 일에 대해서 얼마나 잘 설명하고 있습니까?
각 낱말의 옆 공란에 다음과 같이 표시를 하십시오.

- 당신의 작업에 대해서 맞게 설명하고 있는 경우
X 당신의 작업에 대해서 틀리게 설명하고 있는 경우
? 맞는지 틀리는지 결정하기 힘들 경우

현 직무에 대하여

- | | |
|----------------------|-----------------------|
| <u> </u> 강하게 끝된다. | <u> </u> 단조롭다. |
| <u> </u> 만족스럽다. | <u> </u> 따분하다. |
| <u> </u> 좋다고 생각한다. | <u> </u> 창조적이다. |
| <u> </u> 존경받는 일이다. | <u> </u> 불편하다. |
| <u> </u> 즐겁다. | <u> </u> 유용하다. |
| <u> </u> 심중하다. | <u> </u> 건강에 좋다. |
| <u> </u> 도전할만하다. | <u> </u> 할일이 너무 많다. |
| <u> </u> 좌절감을 느낀다. | <u> </u> 단순하다. |
| <u> </u> 반복적이다. | <u> </u> 성취감을 준다. |

당신의 현 승진기회에 대하여 생각해 보십시오.

다음의 낱말들이 이러한 승진기회에 대해서 얼마나 잘 설명하고 있습니까?

각 단어의 옆 공간에 다음과 같이 표시를 하십시오.

- 당신의 승진기회에 대해서 맞게 설명하고 있는 경우
- X 당신의 승진기회에 대하여 틀리게 설명하고 있는 경우
- ? 맞는지 틀리는지 결정하기 힘든 경우

현 승진기회에 대해서

- ___ 승진할 기회가 많이 있다.
- ___ 다소 제한되어 있다.
- ___ 능력에 따른 승진이다.
- ___ 장래성이 없다.
- ___ 승진 가능성이 높다.
- ___ 승진 정책이 부당하다.
- ___ 승진 기회가 드물다.
- ___ 정기적으로 승진이 되고 있다.
- ___ 승진 가능성이 아주 높다.

당신이 현재 받고있는 임금에 대해서 생각해 보십시오.

다음의 낱말들이 당신의 현 임금에 대해서 얼마나 잘 설명하고 있습니까?

각 낱말의 옆 공간에 다음과 같이 표시를 하십시오.

- 당신의 임금에 대해서 맞게 설명하고 있는 경우
 당신의 임금에 대해서 틀리게 설명하고 있는 경우
 맞는지 틀리든지 결정하기 힘든 경우

현임금이 대하여

- 보통의 소비생활하기에 적당하다.
 공격하다고 생각한다.
 겨우 생활해 나갈 정도다.
 나쁘다.
 화려한 생활을 할 정도로 충분하다.
 불안정하다.
 받을만큼 받지 못하고 있다.
 잘 받고 있다.
 적게 받고 있다.

당신이 함께 일하고 있는 사람들에게 대해서 생각해 보십시오.

다음의 낱말들이 이러한 사람들에게 대해서 얼마나 잘 설명하고 있습니까?

각 낱말의 옆 공간에 다음과 같이 표시를 하십시오.

○ 당신과 함께 일하고 있는 사람들에게 대해서 맞게 설명하고 있는 경우

X 당신과 함께 일하고 있는 사람들에게 대해서 틀리게 설명하고 있는 경우

? 맞는지 틀리는지 결정하기 힘든 경우

현 동료들에 대해서

___ 일하는데 자극이 된다.

___ 따분하다.

___ 느리다.

___ 도움이 된다.

___ 어리석다.

___ 책임감이 있다.

___ 빠르다.

___ 지적이다.

___ 적이 되기 쉽다.

___ 말이 너무 많다.

___ 영리하다.

___ 게으르다.

___ 불쾌하다.

___ 수다스럽다.

___ 적극적이다.

___ 취미의 폭이 좁다.

___ 충실하다.

___ 완고하다.

An application of the Job Descriptive Index
to Korean Employees: The Measurement of
Job Satisfaction and Psychometric
Equivalence of a Translation

by

Jinkook Tak

B.A., Sung Kyun Kwan University, 1981

AN ABSTRACT OF A REPORT

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Abstract

The present study was intended to investigate the feasibility of using a Korean translation of the JDI to measure job satisfaction in Korea. Data were collected from 471 Korean employees. First, in order to determine if the scale structure of the JDI was stable for the Korean sample, coefficients of congruence were computed between the five factors of the original JDI and the four, five, and six factor solutions of the Korean version of the JDI. The work itself and supervision scales were highly congruent across the three types of factor solutions (.81 - .93). The co-workers scale was moderately stable (.71) for the four factor solution whereas it split into two factors for both the five and six factor solutions. Both the pay and promotion factors were highly congruent only for the six factor solution (both .82). Second, reliability estimates of the five dimensions of the Korean version of the JDI showed moderate to high coefficient alpha, ranging from .69 to .90. Finally, the relationships among and between the background variables and the JDI scales revealed that there were similarities between Korean workers and American workers. These similarities and the interpretations of the results of factor structure analyses are discussed.