Validation of the Almost Perfect Scale-Revised

Hyun-joo Park†

Dongguk University

The current study attempted to validate the Almost Perfect Scale-Revised (APS-R; Slaney, Rice, Mobley, & Trippi, 2001) with a sample of Korean college students. A robust statistical approach including confirmatory factor analysis (CFA), exploratory factor analysis (EFA), and parallel analysis (PA) was utilized. As a result, the 3-factor structure of the APS-R (Discrepancy, High Standards, and Order) was retained with the deletion of four items from the original scale. The reliability estimates of the Korean version of the APS-R (K-APS-R) was examined by the internal consistency estimates and the stability over a 3-week period and was found to be adequate. The validity of the scale was examined by the correlations between the K-APS-R and psychological adjustment (self-esteem, depression, and trait anxiety). Discussion focused on the comparison of the results of the current study with the findings from other cultures (e.g., African American college students, Hong Kong).

Key words : Almost Perfect Scale-Revised, Perfectionism, Scale Validation.

† Corresponding author : Hyun-joo Park, Department of Education, Dongguk University, 3-26, Pil-dong, Chung-gu, Seoul 100-715, Korea
  Tel : 02-2260-3383, E-mail : hjpark@dongguk.edu, Fax : 02-2277-1274

Many efforts have been made to adequately access perfectionism, resulting in several scales of perfectionism. Measurement of perfectionism originally began with a unidimensional approach. For example, Burns (1980) developed the Perfectionism Scale comprised of 10 items to measure having high standards. However, it was two Multidimensional Perfectionism Scales in early 1990s developed independently by Hewitt and Flett (1991) and Frost and his colleagues (1990) that embarked on the empirical investigation of the construct. The Multidimensional Perfectionism Scale by Hewitt and Flett (1991; H-MPS) was composed of three conceptually-driven subscales, Self-Oriented Perfectionism (SOP), Other-Oriented Perfectionism (OOP), and Socially Prescribed Perfectionism (SPP). Frost, Marten, Lahart, and Rosenblate's (1990) Multidimensional Perfectionism Scale (F-MPS) was driven by six subscales that were related with cognitive and behavioral characteristics of perfectionists: Concerns over Mistakes (CM), Personal Standards (PS), Parental Expectations (PE), Parental Criticism (PC), Doubts about Actions (DA), and Organization (O). Although not having been utilized as widely as the H-MPS and F-MPS, Slaney and Johnson (1992) developed the Almost Perfect Scale (APS) based on the anecdotal and empirical literature; the APS comprised four subscales of Standards and Order, Relationship, Anxiety, and Procrastination. Since the development of sound measures of perfectionism,

numerous empirical studies on perfectionism have been conducted with a variety of research topics. It can be said that perfectionism is now a major research area in applied psychology literature.

Although research on perfectionism is greatly indebted to the scales that measure perfectionism from a multidimensional framework, measurement issues regarding the definitions or nature of the perfectionism construct still remain unclear. Some researchers raised questions whether multidimensional approach to perfectionism has failed to capture the very essence of the construct (Slaney et al., 2001). Slaney et al. (2001) suggested that several subscales from the F-MPS and H-MPS reflect causes, concomitants, and/or effects of having perfectionistic tendencies rather than grasping the core meaning of the construct of perfectionism. For example, PE and PC subscales of the F-MPS can be conceptualized as the possible causes of being perfectionistic. The CM and DA subscales appears to reflect the resultants of being perfectionistic. The SPP of the H-MPS, which can be also looked as the cause of perfectionism rather than perfectionism itself.

In this regard, another scale of perfectionism, the Almost Perfect Scale-Revised (APS-R; Slaney et al., 2001) is worthy of examination. Using the dictionary definitions of perfectionism and a review of recent literature including qualitative studies on perfectionists, Slaney et al. (2001) developed a revised version of the APS with purposes of developing a measure of

perfectionism that: (a) the defining features of perfectionism are not correlates of the construct; (b) reflects the positive and negative aspects of perfectionism; and (c) is close to the common definition of perfectionism and is empirically sound. Slaney et al. (2001) created the item pools for the APS-R by keeping the items of the Standards and Order subscale and adding new items for the Discrepancy subscale. Through exploratory and confirmatory factor analyses, the resulting 23-item APS-R consists of three subscales: High Standards, Discrepancy, and Order. The High Standards subscale taps into having high standards and expectations about one's performance and achievements. The Order subscale measures one's preference for orderliness and neatness. The Discrepancy subscale assesses the degree to which the respondents perceive as the gap between their performances and their standards. The High Standards and Order reflect adaptive/positive perfectionism and the Discrepancy subscale attempts to capture the maladaptive/negative aspects of perfectionism (Slaney et al., 2001).

There are other perfectionism scales which attempts to measure perfectionism from positive and negative aspects with a focus on the defining features of the construct. For example, the Positive and Negative Perfectionism Scale (Terry-Short, Glynn Owens, Slade, & Dewey, 1995) distinguishes positive and negative perfectionistic traits from a behavioristic perspective. However, the APS-R has its advantage in that the scale has been increasingly utilized in the empirical studies on perfectionism since its development. Some researchers primarily utilized the APS-R in identifying different types of perfectionists through cluster analysis (Grzegorek, Slaney, Franze, & Rice, 2004; Rice & Slaney, 2002; Rice, Vergara, & Aldea, 2006). Other researchers were specifically interested in the role of the Discrepancy subscale to represent the maladaptive sides of perfectionism (Wei, Mallinckrodt, Russell, & Abraham, 2004; Wei, Heppner, Russell, & Young, 2006).

Despite the increasing popularity of the APS-R in the perfectionism research, most of the empirical studies were conducted with the Euro-American samples, which limits our understanding of how the APS-R can be utilized with more diverse samples. Only two studies investigated the utility of the APS-R with samples other than majority sample s (i.e., European American college students). Mobley, Slaney, and Rice (2005) examined the cultural validity of the APS-R with 251 African American college students. Utilizing a multi-group confirmatory factor analysis, the researchers found that the three-factor structure of the APS-R functions appropriately in both African American and European American college students samples. In addition, the findings revealed that the three clusters of perfectionists (i.e., adaptive perfectionists, maladaptive perfectionists, and nonperfectionists) are retained in the African American college students. Wang,

Slaney, and Rice (2007) also validated the three subscales of the APS-R with 273 Chinese university students in Taiwan. The cluster analysis results from this study was slightly different from the three clusters identified in the Western culture: a fourth group with low-High Standards/high-Discrepancy scores appeared.

The importance of establishing the generalizability of constructs across cultures has been strongly emphasized in counseling research (Ægisdóttir, Gerstein, & Çinarbaş, 2008). Ægisdóttir et al. (2008) listed three approaches to measurement issues when conducting a cross-cultural study: (a) the assembly approach where a culture-specific measure is newly developed; (b) the applied approach where an instrument is directly translated with no change; and (c) the adaptation approach where some items are retained and other items are modified. The current study adopts the applied approach because what the APS-R measures is closely tied to the defining features of perfectionism, which is expected not to be heavily influenced by a specific culture. Furthermore, the development of the APS-R is based on an interview study with professors and college students in India (Slaney, Chadha, Mobley, & Kennedy, 2000) and the APS-R was successfully validated with Taiwanese college students (Wang et al., 2007). In addition, literature is very limited to raise a concern that the construct of perfectionism is not equivalent in Korea, which supports the use of the applied approach.

The research on perfectionism in Korea has steadily increased in the past decade. One clue to the increasing interest in perfectionism can be found from Koreans ' subjective self (Inumiya & Kim, 2006). According to Inumiya and Kim (2006), those with subjective self perceive themselves as a main agent of social influence and evaluate themselves based on the ideal self, which may be linked with a strong tendency to pursue a perfect state. Given the paucity of research to validate the APS-R with diverse populations, this study purports to validate the factor structure of the APS-R and examine its psychometric properties (e.g., reliability and validity estimates) with a Korean college students sample.

Method

Participants and Procedure

Three hundred and fifteen college students from a major university in Seoul were recruited as participants for this study. This university had 11 colleges and about 15,000 undergraduate students were enrolled as of the year of 2007. The data from nine students were deleted due to incomplete data and the data from 306 students were subject to data analyses (178 females, 58.2%). The age of the participants ranged from 18 to 31 years, with a mean of 22.10 years ($SD = 2.44$). About two-thirds of

the participants were juniors (n = 104, 34.0%) and seniors (n = 98, 32.0%). About half of the participants majored in social science or business (n = 143, 46.7%), 89 students in humanistic or education (29.1%), and 50 students in natural science (16.3%).

Additional 26 college students (8 males, 18 females) were recruited for the test-retest reliability estimates of the APS-R over a 3-week period. The mean age of this 26 participants was 23.08 years (SD = 2.16).

Participants were recruited from four classes by instructors. Participants were told a brief introduction of the study purpose and were given the research packet consisting of the background information and the questionnaires of main study variables. Participation to the study was on a voluntary basis.

Measures

Almost Perfect Scale-Revised(APS-R; Slaney et al., 2001)

The APS-R consists of 23 items that are rated on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). The APS-R consists of three subscales: High Standards (7 items), Order (4 items), and Discrepancy (12 items). Information about what each subscale measures is presented in the introduction section. The psychometric properties of the APS-R have been validated through a series of studies by Slaney and his colleagues (see Mobley et al, 2005).

Slaney et al. (2001) reported that the internal consistency estimates of the APS-R ranged from .85 to .92. Concurrent validity estimates of the APS-R were validated from positive correlations with other measures of perfectionism (Ashby & Rice, 2002). The reliability and validity estimates of the Korean version of the APS-R will be presented in the Results section.

The APS-R was first translated into Korean by the author who was fluent both Korean and English and familiar with the content of the scale. The translated version was then back-translated by a graduate student who is a bilingual and majors in psychology. Another graduate student compared the original English version and the back-translated version and modifications were made accordingly. This process was repeated until all concerned parties agree. Finally, a college professor who specializes in English translation examined the equivalence of the two versions.

Frost Multidimensional Perfectionism Scale (F-MPS: Frost et al., 1990)

The F-MPS is a widely-used measure of perfectionism. The F-MPS was used as a convergent validity estimate in this study. 35 items of the F-MPS are responded on a 5-point Likert-type scale (from 1 = *strongly disagree* to 5 = *strongly agree*). The F-MPS is composed of the following six factors: Concern over Mistakes (CM), Personal Standards (PS), Parental Expectations (PE), Parental Criticism (PC),

Doubts about Actions (DA), and Organization (O). The F-MPS has been found to be a measure with sound psychometric properties in the Western cultures (see Frost et al., 1990; Rice & Mirzadeh, 2000). A Korean version of the F-MPS translated by Park, Lee, and Heppner (2004) was used in this study. Park et al. (2004) reported adequate levels of reliability and validity estimates for the Korean F-MPS. In this study, the alpha coefficients for the total F-MPS and the six subscales were as follows: .89 (total), .84 (CM), .73 (PS), .85 (PE), .75 (PC), .66 (DA), and .89 (O).

Rosenberg Self-Esteem Scale(RSE; Rosenberg, 1965)

The RSE was used to measure participants' levels of self-esteem. The RSE has been demonstrated as the most widely used measure of global self-esteem (Blascovich & Tomaka, 1991). The 10 items of the scale are rated on a 4-point Likert-type scale (1 = *strongly disagree* to 4 = *strongly agree*). Higher scores indicate greater self-esteem. The internal consistency estimates of the RSE has ranged from .86 to .93 (Goldsmith, 1986) and test-retest reliability over a 2-week period was .85 (Fleming & Courtney, 1984). A translated version of the RSE by Lee (1993) was used in this study. Lee, Lee, and Park (2008) reported the alpha coefficient of the Korean RSE as .85. In this study, the coefficient alpha for the RSE was .84 (N = 309).

Beck Depression Inventory(BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961)

The BDI is composed of 21 statements. Various symptoms of depression are assessed on a 4-point Likert-type scale ranging from 0 to 3. Possible total score ranges from 0 to 63 with higher scores indicating more severe depression. The reliability and validity of this measure have been well documented (e.g., Beck, Steer, & Garbin, 1988). Lee (1999) reported the alpha coefficient of the K-BDI as .86 with a sample of 516 Korean college students. The coefficient alpha for the K-BDI in this study was .87 (N = 307).

State-Trait Anxiety Inventory-Trait Form (STAI-T; Spielberger, 1983)

The STAI-T was chosen as a measure of various thoughts and feelings about anxiety. The scale consists of 20 4-point Likert-type items (from 1 = *almost never* to 4 = *almost always*). The STAI-T has an acceptable level of internal consistency (Maloney, Cheney, Spring, & Kanusky, 1986) and construct validity (Spielberger, 1983). A translated version of the STAI-T by Kim (1978) was used in this study. Lee (1996) reported the alpha coefficient of .87 of this widely-used version. The coefficient alpha for the Korean version of the STAI-T was .90 in this study (N = 300).

Balanced Inventory of Desirable Responding-Impression Management(BIDR- IM; Paulhus,

1994)

The BIDR measures social desirability response bias in participants. The 40-item BIDR consists of two subscales, Impression Management (IM) and Self-deception Positivity. The 20-item IM was selected in this study which measures a deliberate self-presentation to other people. Responses are rated on a seven-point Likert-type (from 1 = *not true* to 7 = *very true*). Studies reported acceptable levels of internal consistency (Paulhus, 1994) and validity of the IM scale (Inman, Ladany, Constantine, & Morano, 2001). In this study, the translated version of the BIDR-IM by Lee, Heppner, and Park (2003) was used. Lee et al. (2003) reported the alpha coefficient for the Korean BIDR-IM as .66.

Results

Confirmatory Factor Analysis

In order to examine if the established 3-factor structure of the APS-R would emerge with a sample of Korean college students, a confirmatory factor analysis (CFA) using AMOS 5.0 program was performed. Several fit indices were examined along with the chi-square statistics: the Comparative Fit Index (CFI); the Tucker-Lewis Index (TLI); the Root-Mean-Square Error of Approximation (RMSEA); and the Standardized Root-Mean-Square Residual (SRMR).

The 3-factor structure of the APS-R yielded

the following fit indices: $\chi^2(227, N = 294) = 700.39$, $p < .001$, CFI = .813, TLI = .792, RMSEA = .084 (90% Confidence Interval = .077-.092), and SRMR = .095. Based on the recommendations by Hu and Bentler (1999) and Hong (2000), the data of the current study failed to support the hypothesized 23-item, 3-factor structure of the APS-R. Given that modification indices were examined in both Mobley et al. (2005) and Wang et al. (2007), modification indices were also utilized. The results identified three large residuals at the level of error covariance between three pairs of Discrepancy items. However, the modified version of the APS-R with three additional error covariances, although some improvements were made compared to the initial model, did not yield a satisfactory fit to the data: $\chi^2(224, N = 294) = 574.46$, $p < .001$, CFI = .862, TLI = .844, RMSEA = .073 (90% Confidence Interval = .066-.080), and SRMR = .095.

Exploratory Factor Analysis

Given the unsatisfactory CFA results, an exploratory factor analysis (EFA) was conducted using SPSS 12.0 program on the 35 items of the APS-R. Before conducting EFA, the mean, standard deviation, skewness, and kurtosis of the 35 items of the APS-R were examined. All skewness and kurtosis values were below the absolute value of 1.20 indicating the normality of the data given the large size of the sample

(Tabachnick & Fidell, 2001). The initial extraction by principal axis factoring (PAF) method indicated that five factors have eigenvalues greater than 1.0. Changes of the slopes shown in the scree plot suggested the existence of three or four factors. Parallel analysis (PA: Horn, 1965) was also employed to help determine the number of factors to retain. PA is supported as one of the most accurate ways to determine the number of factors to retain (Hayton, Allen, & Scarpello, 2004; O'Conner, 2000; Velicer, Eaton, & Fava, 2000). The rationale behind PA is that 'true factors' from real data would have greater eigenvalues than 'parallel factors' created from random samples with the same sample size and number of variables as in the real data (Ford, MacCallum, & Tait, 1986; Lautenschlager, 1989). Following the guidelines by Hayton et al. (2004), 50 random samples with the same sample size ($N = 294$) and 23 variables (i.e., the number of items in the APS-R) were created. Per each random sample, PAF was performed and the resulting factors and their

eigenvalues are recorded. The average eigenvalues of 50 random samples and the 95th percentile eigenvalues are compared with the eigenvalues from the actual sample (see Table 1). From Table 1, we can see that the actual eigenvalues are greater than the average eigenvalues of the 50 random samples in the first three factors. This result indicates that the three factors whose eigenvalues are greater than the average eigenvalues from the random samples are robust to chance or random errors.

Because (a) the scree plot showed three or four factors, and (b) PA results indicated three factors to retain, 3- and 4-factor solutions were carefully examined. The scale refinement procedure was applied based on retaining the items having factor loadings greater than .40 and cross-loadings smaller than .25 (Pett, Lackey, & Sullivan, 2003). The item contents suggested that a 3-factor structure carrying the original three subscales (i.e., Discrepancy, High Standards, and Order) fits more clearly, with four items not meeting the item retention criteria removed. It is also consistent with the

Table 1. Parallel Analysis

Factor	Actual Eigenvalue	Average Eigenvalue	95th Percentile Eigenvalue
1	5.672	1.541	1.619
2	3.761	1.448	1.507
3	2.090	1.370	1.416
4	1.176	1.323	1.362
5	1.043	1.270	1.309

Note. Five of 50 actual, average, and 95th percentile eigenvalues.

PA results suggesting three factors. The 4-factor model was composed of Discrepancy, Order, and two subscales which merely divides High Standards. Table 2 presents the refined 3-factor solution of the K-APS-R with their respective items, pattern coefficients, communality estimates, means, and standard deviations.

The 19-item, 3-factor K-APS-R contained the three factors established in the previous studies: (a) Discrepancy (10 items; 24.5% of the total

Table 2. Items, Pattern Coefficients, Communality Estimates, Means, and Standard Deviations for the 19-item, 3-Factor Korean Version of the Almost Perfect Scale-Revised

K-APS-R (19 items; α = .82)	Pattern Coefficients			h^2	M	SD
	F1	F2	F3			
Factor 1: Discrepancy (10 items; α = .88)						
I am hardly ever satisfied with my performance.	**.80**	-.09	-.01	.64	3.39	1.50
I am seldom able to meet my own high standards for performance.	**.78**	.01	-.06	.61	3.67	1.43
I hardly ever feel that what I've done is enough.	**.74**	-.06	-.02	.55	3.03	1.47
My performance rarely measures up to my standards.	**.71**	-.00	-.05	.51	3.60	1.50
I am never satisfied with my accomplishments.	**.68**	.19	.02	.53	3.48	1.62
I rarely live up to my high standards.	**.64**	.00	-.08	.42	3.92	1.56
Doing my best never seems to be enough.	**.63**	.02	.03	.40	4.18	1.70
I am not satisfied even when I know I have done my best.	**.57**	.08	.04	.34	3.44	1.67
My best just never seems to be good enough for me.	**.56**	-.10	.15	.32	4.05	1.82
I often feel frustrated because I can't meet my goals.	**.50**	.01	.05	.25	4.56	1.70
Factor 2: High Standards (5 items; α = .79)						
I set very high standards for myself.	.19	**.75**	-.05	.62	5.07	1.40
I expect the best from myself.	.03	**.75**	.01	.57	5.01	1.52
I have high expectations for myself.	-.24	**.71**	-.11	.51	5.63	1.18
I have a strong need to strive for excellence.	-.02	**.69**	.10	.52	5.40	1.41
If you don't expect much out of yourself you will never succeed.	.10	**.42**	.10	.22	5.55	1.49
Factor 3: Order (4 items; α = .76)						
I am an orderly person.	-.05	.03	**.77**	.61	4.13	1.70
Neatness is important to me.	-.04	.09	**.74**	.59	4.86	1.53
I think things should be put away in their place.	.01	-.09	**.72**	.49	4.73	1.66
I like to always be organized and disciplined.	.13	.02	**.46**	.23	4.16	1.71

Note. N = 294. h^2 = communality estimates; F1 = Discrepancy; F2 = High Standards; F3 = Order.

variance explained); (b) High Standards (5 items; 14.3% of the total variance explained); and (c) Order (4 items; 8.2% of the total variance explained). The total 19 items explained 47.0% of the total variance. Two items in the original Discrepancy factor: "I often worrying about not measuring up to my own expectations" and "I often feel disappointment after completing a task because I know I could have done better" were removed after the EFA. Similarly, two items in the original High Standards factor were deleted: "I have high standards for my performance at work or at school" and "I try to do my best at everything I do."

Reliability Estimates of the K-APS-R

As presented in Table 2, the total K-APS-R and the three subscales showed adequate levels of internal consistency estimates: .82 (K-APS-R total), .88 (Discrepancy), .79 (High Standards), and .76 (Order). In addition, the test-retest reliability estimates of the K-APS-R total score and its three subscales over a 3-week period were as follows: .95 (APS-R total), .92 (Discrepancy), .94 (High Standards), and .93 (Order) ($n = 26$).

Validity Estimates of the K-APS-R

The convergent validity estimates of the K-APS-R was examined by the correlations with the F-MPS subscales. The Discrepancy of the

K-APS-R was positively correlated with all the subscales of the F-MPS [rs ranging from .26 (with the Parental Expectations) to .55 (with the Concern over Mistakes), ps < .001] except for the Organization. The Order subscale showed positive correlations only with the Personal Standards ($r = .25$) and the Organization ($r = .79$) of the F-MPS. And the High Standards subscale was positively associated with the Concern over Mistakes, Personal Standards, and Organization subscales. These correlation patterns are consistent with the ones from Slaney et al. (2001), which supports the convergent validity of the K-APS-R. A different result with Korean college students was that the High Standards was also significantly correlated with the Parental Expectations subscale ($r = .23$, $p < .001$).

The concurrent validity estimates of the K-APS-R was explored by the associations with the RSE (self-esteem), STAI-T (anxiety), and BDI (depression). The Discrepancy showed positive correlations with the BDI ($r = .53$) and STAI-T ($r = .56$) and a negative association with the RSE ($r = -.55$). The High Standards was positively associated with the RSE ($r = .30$) and the Order showed no significant correlations. These results are similar to the findings from Slaney et al. (2001) and Wang et al. (2007).

Finally, no significant associations were found between the three subscales of the K-APS-R and the Impression Management of the BIDR, which suggests that what K-APS-R measures is independent from the social desirability. Taken

Table 3. Correlations among the Three K-APS-R Subscales and the Variables of Interest

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. D	---											
2. HS	.14	---										
3. Order	.02	.20**	---									
4. CM	.55**	.20**	.08	---								
5. PS	.29**	.73**	.25**	.41**	---							
6. PE	.26**	.23**	.06	.46**	.40**	---						
7. PC	.41**	-.14	-.08	.46**	.07	.51**	---					
8. DA	.51**	.08	-.04	.48**	.23**	.24**	.39**	---				
9. O	-.01	.29**	.79**	.11	.41**	.12	-.07	.01	---			
10. IM	-.11	.04	.15	-.13	-.02	-.10	-.19**	-.18	.08	---		
11. RSE	-.55**	.30**	.08	-.39**	.12	-.12	-.48**	-.43**	.15	.12	---	
12. STAI-T	.56**	-.11	-.11	.53**	.02	.20**	.46**	.53**	-.17	-.16	-.64**	---
13. BDI	.53**	-.05	-.10	.42**	.08	.16	.42**	.37**	-.12	-.02	-.55**	.71**

Note. D = Discrepancy; HS = High Standards; CM = Concern over Mistakes; PS = Personal Standards; PE = Parental Expectations; PC = Parental Criticism; DA = Doubts about Actions; O = Organization; IM = Impression Management; RSE = Rosenberg Self-Esteem; STAI-T = State-Trait Anxiety Inventory-Trait; BDI = Beck Depression Inventory.

All *ps* < .001.

together, the K-APS-R was found to have adequate levels of convergent and concurrent validity estimates.

Discussion

The purpose of this study was to validate a measure of perfectionism, the Almost Perfect Scale-Revised (Slaney et al., 2001) with a sample of Korean college students. Adequate translation and back-translation procedures were administered and robust statistical analyses including an EFA with a parallel analysis were performed. The three-factor structure of the K-APS-R, specifically the Discrepancy, High Standards, and Order, was confirmed with the Korean college students with deletion of four items from the original APS-R. The initial confirmatory factor analysis did not strongly support the 23-item, three-factor structure, yet an exploratory factor analysis along with a parallel analysis indicated that the Discrepancy, High Standards, and Order subscales were retained. The K-APS-R was found

to have adequate levels of internal consistency and stability over time. The convergent and concurrent validity of the K-APS-R was also established through its relations with another measure of perfectionism and psychological adjustment measures.

The existence of the Discrepancy, High Standards, and Order of the APS-R was confirmed with a sample of Korean college students. However, four items were deleted based on the EFA and parallel analysis results; two items from the Discrepancy ("I often worry about not measuring up to my own expectations" and "I often feel disappointment after completing a task because I know I could have done better") and two items from the High Standards ("I have high standards for my performance at work or at school" and "I try to do my best at everything I do"). Some hypotheses can be discussed regarding why the original 23-item APS-R was not validated. First, from the measurement perspective, the four items that were deleted had the lowest factor loading values to the latent variables, ranging from .38 to .46., in the CFA results. From the EFA results, the two items deleted from the Discrepancy were loaded on both the Discrepancy and High Standards and the two items deleted from the High Standards were loaded on the High Standards and Order. These results suggest that the four items had somewhat weaker links with the latent variables to which they originally belonged. Secondly, it is possible that the meaning of the four items may not be strong enough to be perceived as not meeting one's standards and having high standards. Previous research revealed that Asian Americans show heightened levels of perfectionism compared to Caucasian Americans (Castro & Rice, 2003; Chang, 1998). It can be assumed that worrying about one's expectations or trying to do one's best may not be qualified as perfectionistic tendencies for Korean college students. Whether this stems from cultural factors or translation by-products need to be further examined.

The positive association between the High Standards and the Order is consistent across the findings from the European American college students (Slaney et al., 2001), the African American college students (Mobely et al., 2005), and the Chinese university students from Taiwan (Wang et al., 2007). The absence of significant relationships between the Discrepancy and the High Standards and Order is similar to the findings from Slaney et al.'s study (2001), which suggests that the Discrepancy subscale appear to measure negative aspects of perfectionism independently from what the High Standards and Order subscale tap into.

The results from the correlations between the K-APS-R subscales and indices of other psychological adjustment (e.g., depression, trait anxiety, and self-esteem) corroborate the distinctive nature of the Discrepancy subscale from the High Standards and Order subscales.

The Discrepancy subscale showed positive associations with higher levels of depression and trait anxiety as well as low self-esteem. The same patterns of correlational results of the Discrepancy were found from the European American college students (Slaney et al., 2001), the African American college students (Mobely et al., 2005), and the Chinese university students from Taiwan (Wang et al., 2007). Thus, as an individual perceives that there is a big gap between his/her standards and where the person stands, it is likely that the person suffers psychological maladjustments, such as depression, anxiety, and low self-esteem. The High Standards subscale was positively related with a measure of self-esteem, which is also consistent with the findings from American college students (Mobley et al., 2005; Slaney et al., 2001) but not with the Chinese students from Taiwan (Wang et al., 2007).

The validated K-APS-R provides some future research venues. Researchers may want to identify the three groups of people on perfectionism (i.e., adaptive perfectionists, maladaptive perfectionists, and non-perfectionists) by exercising cluster analysis on the K-APS-R subscales and examine each group's characteristics. It would be particularly interesting to see if a fourth group with low-High Standards and higher-Discrepancy scores, which was found with Chinese university students from Taiwan (Wang et al., 2007), would emerge in the Korean samples as well.

This is also related with further validating the use of the APS-R. The APS-R has been mainly used as a tool for either identifying clusters of perfectionists or representing maladaptive perfectionism by the Discrepancy. Future research is called for in order to clarify the meaning of each subscale as well as the total scores of the APS-R and to validate the criterion scores to locate adaptive and maladaptive perfectionists.

Another area of study is to examine how parental influences are intertwined with perfectionistic tendencies in Korea. The significant association between the Parental Expectations of the F-MPS and the Discrepancy and the High Standards of the K-APS-R suggests that Korean college students who perceive that their parents have high expectations set higher standards for themselves and also feel that they do not meet the high standards. The association between the Parental Expectations and the Discrepancy is consistent wi th the results from American college students; however, no relationship was found between the Parental Expectations and the High Standards (Slaney et al., 2001). It can be assumed that Korean college students may internalize their parents' high expectations toward them to set their own standards. Given the importance of the parent-child kinship in Korea (Kim & Choi, 1994), the unique role that parents' influences may play in perfectionistic tendencies in Korean culture would provide information about the culture-specific characteristics of perfectionism.

The validation of the K-APS-R also has implications for counselors who work with clients with perfectionistic tendencies. The K-APS-R can be readily applied as a clinical assessment tool to examine the levels of high standards that clients hold (the High Standards) and the perceived gap between their standards and current performances (the Discrepancy). Counselors are advised that having high standards itself is not maladaptive; rather, high standards may be associated with maintaining positive self-esteem. From the study results, counselors need to examine carefully the discrepancy between clients' standards and their perceived performances, which can contribute to low self-esteem, depression, and anxiety.

Limitations pertaining to the current study also should be noted. First, the three-factor structure of the K-APS-R consisting of 19 items needs to be subject to cross-validation with college students in other geographical areas in Korea as well as more diverse samples, such as adolescents and older adults. Relatively small item communalities of some items also warrant further validation of the scale. The psychometric properties of the K-APS-R need to be continuously examined with various indices of psychological adjustment, such as interpersonal difficulties and eating disorders. In addition, given the quantitative nature of this study, exploring the nature of the High Standards and Discrepancy constructs using qualitative approach would help to understand the nature of these

factors and the construct of perfectionism (Mobely et al., 2005). The current study adopted the applied approach which does not allow to reflect the construct bias of perfectionism (Ægisdóttir et al., 2008). In the future research, it would be particularly important to investigate the universal characteristics of perfectionism across cultures as well as to elucidate the culture-specific features of perfectionism in Korea.

Limitations notwithstanding, the current study provides a meaningful step in measuring and understanding the construct of perfectionism in Korea. The three factors of the APS-R was found with Korean college students and its reliability and validity estimates were demonstrated. The validation of the K-APS-R opens diverse ways to conduct research on perfectionism and to assess perfectionistic tendencies in clients.

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Almost Perfect 척도의 타당화 연구

박 현 주

동국대학교

본 연구의 목적은 최근에 완벽주의 연구에서 널리 사용되고 있는 Almost Perfect 수정 척도 (Almost Perfect Scale-Revised: APS-R; Slaney, Rice, Mobley, & Trippi, 2001)를 한국 대학생을 대상 으로 타당화 하는 것이다. 총 306명의 대학생이 연구피험자로 참여하였다. 확인적 요인분석 결과 3요인, 23문항으로 이루어진 APS-R 구조가 지지되지 않았다. 탐색적 요인분석과 parallel analysis 결과 APS-R의 3개 하위요인인 불일치(Discrepancy), 높은 기준(High Standards), 정리정돈 (Order)이 확인되었으나, 탐색적 요인분석 과정에서 요인선정 기준(Pett, Lackey & Sullivan, 2003) 에 미흡한 4개 문항이 불일치와 높은 기준 하위요인에서 각각 2문항씩 삭제되어 APS-R 한국 어판은 3요인, 19문항으로 구성되었다. 내적 일치도 계수와 3주에 걸친 검사-재검사 신뢰도 계수를 통해 APS-R 한국어판의 신뢰도를 확인하였으며 자존감, 우울, 특질 불안과의 상관 분 석을 통해 타당도를 검증하였다. APS-R의 타당화가 연구와 상담 실제에서 가지는 함의를 논 의하였으며, 특히 다른 문화(미국 흑인 대학생, 홍콩 대학생)에서 이루어진 APS-R 타당화에 대한 선행연구와 비교를 통해서 논의하였다.

주요어 : Almost Perfect 척도, 완벽주의, 척도 타당화