Perfectionism in Chinese Elementary School Students: Validation of the Chinese Adaptive/Maladaptive Perfectionism Scale

Ricci W. Fong and Mantak Yuen

Abstract: Through validation of the Adaptive/Maladaptive Perfectionism Scale (AMPS) (Rice & Preussner, 2002), this study examined the concept of perfectionism among Chinese elementary school students in Hong Kong. A total of 599 students from fourth to sixth grades with ages ranged from 9 to 13 years were recruited on a voluntary basis and with parental consent. They completed a Chinese translation of the AMPS consisting of 27 items. The scale taps into four dimensions of perfectionism, namely: Sensitivity to Mistakes, Contingent Self-Esteem, Compulsiveness, and Need for Admiration. Confirmatory factor analysis was employed. The results supported the AMPS subscales with moderate to high internal consistencies. However, four items were subsequently deleted due to lack of significance. The findings provide methodological and practical implications for future investigations of perfectionism among Chinese students, including those with gifts and talents—a sub-group within which perfectionism is often an issue.

Keywords:
perfectionism, the Adaptive/Maladaptive Perfectionism Scale, Chinese, children, the gifted and talented

Perfectionism can be defined as an individual's tendency to demand extremely high standards in everything he or she does, with little tolerance for mistakes and a feeling that anything less than perfect is unacceptable (Burns, 1980; Hamachek, 1978). For many years, research has confirmed that perfectionism is evident in some students of high intellectual ability or with special talents (Chan, 2007; Parker, 1997; Siegle & Schuler, 2000; Silverman, 1999; Speirs-Neumeister, 2004). Perfectionism for these students can be either a blessing or a curse. While a modest degree of desire for perfection can positively motivate some students to higher achievement, excessive perfectionism can be detrimental to their psychological and emotional wellbeing (Kottman & Ashby, 2000; Nounopoulos, Ashby, & Gilman, 2006; Silverman 1999). All teachers and personnel concerned with guidance and counseling of gifted students need to be able to investigate the degree and nature of a student's desire for perfection in cases where this desire may be problematic.

The purpose of this study was to examine the validity of the Adaptive/ Maladaptive Perfectionism Scale (AMPS) (Rice & Preussner, 2002) and the definitions of perfectionism among Chinese primary students. In recent decades, the role that perfectionism plays in students' development and psychological wellbeing has rapidly gained significance in the research arena. Over the years, the construct of perfectionism has received a myriad of interpretations, giving rise to a proliferation of various tools for measuring perfectionism. Despite the lack of consensus, contemporary research has nevertheless provided ample evidence to support a multidimensional conception of perfectionism (Frost, Marten, Lahart, & Rosenblate, 1990; Hamachek, 1978; Hewitt & Flett, 1991; Slaney, Rice, Mobley, Trippi, & Ashby, 2001; Stoeber & Otto, 2006). Perfectionism can, at times, be an inherently destructive trait (Pacht, 1984) (maladaptive perfectionism), but it also carries a positive aspect which can benefit an individual in various life domains. For example, recent studies suggest that adaptive perfectionism can serve as a catalyst to

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promote positive correlates, such as self-concept (Fong & Yuen, 2009), self-efficacy (Hart, Gilner, Handal, & Gfeller, 1998), subjective well-being (Chan, 2007), life satisfaction (Wang, Yuen, & Slaney, 2009), social relations (Rice, Leever, Christopher, & Porter, 2006), and academic outcomes (Nounopoulos et al., 2006). Notably, perfectionism is no longer viewed as fixed and unitary but a continuum whereby individuals may, for example, predominantly exhibit adaptive perfectionism while displaying some characteristics of maladaptive perfectionism at a lower intensity. In view of the fact that perfectionistic tendencies can be regulated, and where necessary modified, further investigation of perfectionism is meaningful for counseling and educational purposes (Kottman & Ashby, 2000; Rice & Preusser, 2002; Slaney et al., 2001).

However, despite the growth of perfectionism research, much is still unclear about its conceptualization. Mobley, Slaney and Rice (2005) remarked on a cultural divide in the existing perfectionism studies. As most of the literature to date is based on Western samples, the perception and significance of perfectionism in other cultures are relatively unknown and need to be investigated.

In light of the Confucian values ingrained in Chinese culture, the notion of perfectionism is believed to be particularly relevant to the Chinese population (Wang, Slaney, & Rice, 2007). For example, filial piety, or devotion to parents, has been a fundamental value in the moral codes of Chinese. Confucius noted that filial piety is the basis from which all virtues of humanity, namely benevolence, righteousness, propriety, knowledge and fidelity, are nurtured. It contends that since we receive every part of our body from our parents, we are obliged to obey, respect and glorify our parents, as well as our ancestors, with our accomplishments (Watson, 2007). Just as accomplishments are believed to bring glory, failures would lead to a loss of face (or diu lian) to the whole extended family. It is through this shaming and threats of losing face that Chinese parents often shape their children to adhere to culturally desirable values. In this manner, Chinese children are nurtured to be very sensitive to mistakes and failures. If taken too far, this sensitivity can sow the seeds for maladaptive perfectionism (Fung, Lieber, & Leung, 2003; Yeh & Hwang, 1999; Wang et al., 2007). On the other, Confucianism also emphasizes self-improvement by correcting mistakes, an example of adaptive perfectionism (Watson, 2007). This view is reflected in Confucian sayings, such as, “To make a mistake and not correct it is to make a mistake indeed” or “An exemplary person’s errors are like eclipses of the sun or moon. His errors can be seen by all, and when he corrects them, all look up in admiration.”

Within the limited body of perfectionism research conducted on Chinese samples, inconclusive findings emerged in terms of the construct and impact of perfectionism (Chan, 2009; Cheng, Chong, & Wong, 1999; Wang et al., 2007; Zi, 2003). Further investigation, with the support of valid and reliable instruments, is thus called for to clarify the meaning, development, and impact of perfectionism in Chinese communities. At present, we have little understanding of perfectionism as it relates to Chinese students within the primary school age range.

**Measurements of Perfectionism**

For many years, the construct of perfectionism has remained controversial. Acknowledging the adaptive facet of perfectionism, Chan (2007) argued that a negative bias is present in the development of most existing perfectionism scales. For instance, the Burns Perfectionism Scale (BPS) (Burns, 1980) was designed based on the Dysfunctional Attitudes Scale (Weissman & Beck, 1978), which taps into dispositions related to clinical depression and anxiety. While the scale’s reliability and internal consistency were found to be modest (Hewitt & Dyck, 1986), Enns and Cox (2002) criticized the aspect that the scale has failed to address the constructive and multidimensional nature of perfectionism. Later, taking into account the multidimensionality of perfectionism, Frost et al. (1990) and Hewitt and Flett (1991) devised two perfectionism instruments of the same name, the Multidimensional Perfectionism Scale (MPS). Although Frost et al. (1990) have constructed some new items, the initial 67-item version of Frost MPS was derived primarily from BPS.
Validation of the Chinese Adaptive/Maladaptive Perfectionism Scale

(Burns, 1980) and a measure of obsessionality. The six subscales, namely, Concerns over Mistakes, Organization, Parental Criticism, Parental Expectations, Personal Standards, and Doubts about Actions, focus primarily on measuring the maladaptive dimensions of perfectionism. Likewise, Rice and Preusser (2002) pointed out that the three subscales, namely, Self-Oriented Perfectionism, Other-Oriented Perfection and Socially-Prescribed Perfectionism in Hewitt and Flett's MPS (1991) attempt to tap merely the handicapping features of perfectionism. Taken together, the two MPS scales are developed on the assumption that perfectionism is essentially a negative trait (Slaney, Ashby, & Trippi, 1995). In the field of clinical psychology, perfectionism remains the first criterion for the diagnosis of obsessive-compulsive personality disorder in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) although ample empirical findings have supported the existence of its adaptive facet.

Slaney and colleagues (2001) contend that factors identified in the two MPS scales are in fact the resultant effects of perfectionism rather than a description of the concept. To rectify the deficiencies, Slaney and Ashby (1996) and Slaney, Chadha, Mobley, and Kennedy (2000) conducted qualitative studies to explore the definition of perfectionism while attending to its adaptive and maladaptive aspects. The Almost Perfect Scale-Revised (APS-R) (Slaney et al., 2001) was later developed through reliability and factor analyses of responses from 809 undergraduate students in the US. The scale defines perfectionism in terms of one's emphasis on high performance standards (High Standards subscale); one's concern over the discrepancy between the expected standard and actual performance outcome (Discrepancy subscale); and one's emphasis on order (Order subscale). Rice and Slaney (2002) noted that the concept of 'discrepancy' has encapsulated the core nature of maladaptive perfectionism. Three clusters of perfectionists emerged, namely, the adaptive, maladaptive, and the non-perfectionists. Results obtained from other research using the APS-R, as well as Frost's MPS scale, also supported a three-cluster construct (Grzegorek, Slaney, Franze, & Rice, 2004; Mobley et al., 2005; Parker, 1997).

Using different perfectionism instruments, unique constructs of perfectionism are however identified by studies conducted on the Chinese population. Cheng and colleagues (1999) examined the factor structure of a Chinese translation of Frost's MPS scale on 947 Chinese adolescents in Hong Kong. Unlike results generated from the US samples, one of the original six factors, Parental Criticism, was not supported. Later using the APS-R, Wang et al. (2007) yielded a fourth cluster of perfectionists among Chinese college students in Taiwan. The fourth group was constituted by people with low High Standards and high Discrepancy scores. Likewise, in Zi (2003), a fourth group labeled the sub-healthy perfectionists emerged. This group scored as high as the dysfunctional or maladaptive perfectionists on the Parental Criticism and Parental Expectations subscales, and almost as low as the non-perfectionists on the Personal Standards and Organization subscales. More, they scored lower than the dysfunctional perfectionists, yet higher than the healthy and non-perfectionists on the Neurosis subscale of the NEO Five Factor Inventory (NEO-FFI; Yang, 1996). These irregularities in the conception of perfectionism among Chinese could be attributed to their collectivistic backgrounds, the central nature of the family and parents, and the traditional Confucian values (Chan, 2009; Wang et al., 2007). The complexity of perfectionism thus prompts a need for further investigations to capture a clearer picture of the Chinese conception.

To date, the only existing perfectionism measurement that is tailored for Chinese is the Positive and Negative Perfectionism Scale (PNPS-12; Chan, 2007). In line with the adaptive-maladaptive perspective of perfectionism, positive perfectionists are characterized by a realistic striving for excellence; whereas negative perfectionists are rigidly adhered to personal high expectations and are preoccupied with avoiding mistakes. A total of 12 items were constructed with the aid of judgments from teachers of gifted students and pilot testing. The scale includes six items for positive perfectionism and six items for negative perfectionism, each with three self-oriented and three other-oriented items.
Rice and Preusser (2002), however, noted a knowledge gap in the development and perception of perfectionism from childhood to adulthood. Many researchers have suggested salient relationships between perfectionism, familial influence and other personal-social correlates in their investigations on college students (Kawamura, Frost, & Marmatz, 2002; Miller & Vaillancourt, 2007; Speirs-Neumeister, 2004; Nounopoulos et al., 2006; Rice et al., 2006), but few have traced back to examine specifically the conception of perfectionism in primary students. For primary students, the only published instrument available to measure their perfectionistic tendencies is the Adaptive/Maladaptive Perfectionism Scale (AMPS; Rice & Preusser, 2002). In its construction, 27 items were created, stemming from the available perfectionism instruments and theoretical views, as well as with the aid of experts in the field of perfectionism. The validity of the instrument was evaluated using a sample of students from fourth and fifth grades. The items cover four subscales, namely, Sensitivity to Mistakes, Contingent Self-Esteem, Compulsiveness, and Need for Admiration. Internal consistencies of the subscales were high, with alpha coefficients of .91, .86, .87, and .85, respectively. Guided by the hope that a measurement of perfectionism can be developed for future investigations in Chinese primary students, this study attempts to adapt and examine the psychometric properties of a Chinese-translated version of the AMPS in the Hong Kong Chinese primary school context. Secondly, through the validation of the AMPS, and consideration of the students' responses, the authors also attempt to explore how the concept of perfectionism can be applied to Chinese primary students in comparison to the existing Western construct (Rice & Preusser, 2002).

Method

Participants were 599 students from fourth to sixth grades (320 boys: 279 girls) recruited from two primary schools with a student population comprising different socioeconomic backgrounds and located in separate districts in Hong Kong. Within the total sample, 205 students studied in fourth grade, 192 students in fifth grade, and 202 students in sixth grade. Ages ranged from 9 to 13 years ($M=10.6$, $SD=1.16$). All students were Chinese, with the majority born in Hong Kong (86.6%). Others students were born in Mainland China (8.2%), Canada (2.2%), and other countries (2%).

Letters were sent to the school principals inviting their students to participate. Consent letters were also distributed to parents via the participating schools. Confidentiality, anonymity, and the rights of the participants to withdraw at any point during the study without incurring any consequences were clearly stated.

Participants completed the 27-item questionnaire in the regular classroom setting under teacher supervision. Basic demographic information, including age and grade level, was also obtained through additional items in the questionnaire.

The Adaptive/Maladaptive Perfectionism Scale

The scale consists of 27 items, tapping into four dimensions of perfectionism: Sensitivity to Mistakes – which measures negative emotions triggered by making mistakes (e.g. “I become sad when I see a mistake on my paper.”), Contingent Self-Esteem – which measures positive emotions and self-evaluation based on task performance (e.g. “I feel super when I do well at something.”), Compulsiveness – which measures the attention to order, organization, and task details (e.g. “I always make a list of things and check them off after I do them.”), and Need for Admiration – which measures the need for external approval (e.g. “I do good work so that others think I am great.”). Item responses are rated on a 4-point Likert-like scale, ranging from 1 – really unlike me to 4 – really like me. To ensure the commensurability of the two versions of the questionnaires, items were translated into Chinese and back-translated into English by an academic professor and the researcher. Primary language teachers were also consulted regarding the appropriateness of the translated items for the age level of the students. Further, a pilot
test involving 10 students of average academic ability in third grade was conducted to ensure that the use of language in the questionnaire was suitable for the present sample. Some words and phrases were revised accordingly.

**Results**

To examine the model fit of the four-factor construct proposed by Rice and Preusser (2002), confirmatory factor analysis using maximum likelihood estimation was conducted on data from the sample of 599 students using Amos 18. The 27 items were assigned to load on the four originally hypothesized first-order latent variables, namely, Sensitivity to Mistakes, Contingent Self-Esteem, Compulsiveness, and Need for Admiration. In this four-factor model, eight items were constrained to indicate the Sensitivity to Mistakes factor, five items as indicators of the Contingent Self-Esteem factor, six items to indicate the Compulsiveness factor and four items to indicate the Need for Admiration factor.

Chi-square test was applied to aid the decision for the model fit. Since sample size is bound to affect the chi-square statistic in certain circumstances, some of its underlying assumptions may not be met (Bentler, 1990; Bentler & Bonett, 1980; Marsh, Balla, & McDonald, 1988), so other indices of fit were also considered. Hence, the model fit was eventually determined by chi-square test, the Comparative Fit Index (CFI; Bentler, 1990), the standardized root-mean-square residual (SRMR; Bentler, 1995), the root-mean-square error of approximation (RMSEA; Browne & Cudek, 1993), and the 90% confidence interval around the RMSEA. Generally, RMSEA values of less than .08 represent acceptable fit, and values equal or less than .05 indicate good fit (Browne & Cudek, 1993). CFI values of more than .90 and SRMR values of less than or equal to .09 represent an adequate fit (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004).

Table 1 reports that the new 23-item model showed a fair fit for the data, $\chi^2(226, N=599)=597.6, p<.001$; $SRMR=.09$; $RMSEA=.05$; 90% confidence interval around RMSEA=.05 to .06; $CFI=.90$. Three items from the Contingent Self-Esteem and one item from the Sensitivity to Mistakes factors were insignificant in the maximum likelihood estimation and were thus deleted from the scale. Data in Table 2 demonstrated that the internal consistency of the resultant 23-item scale was adequate with a coefficient alpha of .80. Cronbach’s coefficient alphas (inter-item correlations) for the Sensitivity to Mistakes, Contingent Self-Esteem, Compulsiveness, and Need for Admiration subscales

<table>
<thead>
<tr>
<th>Models</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA(90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 items</td>
<td>1341.30</td>
<td>320</td>
<td>0.77</td>
<td>0.10</td>
<td>.07 (.07-.08)</td>
</tr>
<tr>
<td>23 items (4 items deleted)</td>
<td>597.60</td>
<td>226</td>
<td>0.90</td>
<td>0.09</td>
<td>.06 (.05-.06)</td>
</tr>
</tbody>
</table>

Note. CFI, comparative fit index; SRMR, standardized root mean square residual; RMSEA (90% CI), root mean square error of approximation (90% confidence interval around RMSEA).

Table 2. Cronbach Alpha Values for the Four Dimensions of the Full and Reduced Chinese Version of the Adaptive/Maladaptive Perfectionism Scale

<table>
<thead>
<tr>
<th>Subscales</th>
<th>27 Items Cronbach alpha</th>
<th>23 Items Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to Mistakes</td>
<td>0.47</td>
<td>0.51</td>
</tr>
<tr>
<td>Contingent Self-Esteem</td>
<td>0.65</td>
<td>0.62</td>
</tr>
<tr>
<td>Compulsiveness</td>
<td>0.69</td>
<td>0.69</td>
</tr>
<tr>
<td>Need for Admiration</td>
<td>0.83</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Table 3. Correlations Between Subscales of the Chinese Version of the Adaptive/Maladaptive Perfectionism Scale

<table>
<thead>
<tr>
<th>Subscale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sensitivity to Mistakes</td>
<td>-</td>
<td>.149**</td>
<td>.227**</td>
<td>.235**</td>
</tr>
<tr>
<td>2. Contingent Self-Esteem</td>
<td>-</td>
<td>.390**</td>
<td>.442**</td>
<td></td>
</tr>
<tr>
<td>3. Compulsiveness</td>
<td>-</td>
<td>.279**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Need for Admiration</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N=599; *p<.05. **p<.01.
were .51 (-.259 to .486), .82 (.365 to .599), .69 (.105 to .384), and .83 (.479 to .616), respectively. All 23 items were clear indicators of their respective factor. Structure coefficients ranged from -.43 to .66 for the Sensitivity to Mistakes factor, .57 to .78 for Contingent Self-Esteem, .27 to .65 for Compulsiveness, and .69 to .78 for Need for Admiration (see Figure 1). Correlations between the subscales were also examined (see Table 3).

**Discussion**

The validation of the AMPS in this study facilitates the future development of perfectionism research in the Chinese primary school context. Through examining the psychometric properties of the Chinese AMPS, we also probed how the concept of perfectionism can be applied to Chinese students. Comparisons of the present findings with those revealed by the previous samples of Caucasian primary students (Rice et. al, 2006; Rice & Preusser, 2002) shed lights on our understanding of the cultural diversity in students’ perception of perfectionism. In view of the prevalence of perfectionism among gifted and talented students, the development of the Chinese AMPS facilitates research along the line of gifted education in Chinese communities. In practice, the availability of a reliable Chinese perfectionism measure also enables timely identification of perfectionistic tendencies among Chinese primary students, particularly the gifted and talented, for more effective intervention.
Results from the CFA showed that the original four dimensions of perfectionism - Sensitivity to Mistakes, Contingent Self-Esteem, Compulsiveness, and Need for Admiration, were not adequately supported in this Chinese sample. With the omission of four items, the resultant scale consists of 23 items. Structure coefficients of all the items ranged from -.43 to .78. Although three out of the four deleted items belonged to the Contingent Self-Esteem subscale, the internal consistency of the subscale remained comparable to that of the original (Rice & Preusser, 2002). Changes in the factor structure could be attributed to contextual factors. In fact, a more drastic change in the Contingent Self-Esteem subscale was observed in Rice et al. (2006). In the study, the AMPS was administered to 145 students in sixth to eighth grades. Corrected item-total correlations were examined to exclude items that did not appear to associate with the presumed subscale and the overall construct of perfectionism. Items were screened out from further analyses if the corrected item-total correlations were less than .30. As a result, seven out of eight items from the Contingent Self-Esteem subscale failed to meet the criteria. Rather than the original four-factor model, factor analyses supported only three factors, namely, Sensitivity to Mistakes, Compulsiveness, and Need for Admiration. The only remaining item from the Contingent Self-Esteem subscale loaded on the Sensitivity to Mistakes subscale. Rice and colleagues (2007) attribute the changes in factor structure to the transition of developmental stage and the vagueness in some of the items. In the present research, cultural differences could be an obvious contextual factor that has potentially contributed to the variations.

Notably, the three deleted esteem items were all negatively worded items (e.g. "I do not get excited when I do a good job."), which may potentially impose psychometric problems, especially when young participants are involved (Marsh, 1986). Previous simulation studies suggest that careless responding to negatively worded items can detrimentally affect CFA results. A separate negative factor emerged when only 10% of the responses were made carelessly (Schmitt & Stults, 1985; Woods, 2006). Marsh (1986) found that negatively worded items were often inappropriately responded to among a sample of second to fifth graders (aged 7 to 10). In particular, responding to negatively worded items appeared to be more problematic to younger participants and those with poorer verbal skills. In this study, although the participants were mostly older than those in the study by Marsh (1986), participants aged 9 (73 students) and 10 (197 students) accounted to 45% of the sample. It is therefore necessary to speculate that 10% or more of these Chinese primary students may have responded to negatively worded items inappropriately or carelessly, which eventually impacted on the factor structure of the subscales. Future research should examine the appropriateness of responses made by Chinese upper primary students to enhance the development of measurements for Chinese children. On the other hand, some students might have difficulties responding to items that demanded a general perspective (e.g. "My work is never done well enough to be praised") rather than describing a specific example of work in a defined context (e.g. "In mathematics, my work is never done well enough to be praised"). Thus, the lack of specificity of certain items may have diminished the validity and reliability of the students' responses.

In this study, the internal consistencies of the Sensitivity to Mistakes and Compulsiveness subscales were lower, while Contingent Self-Esteem and Need for Admiration were comparable to the findings yielded from the previous US sample (Rice and Preusser, 2002). In fact, mixed findings were yielded in terms of the construct validity and reliability of the Compulsiveness subscale in previous studies. For instance, in Rice et al. (2007), an exceedingly low alpha coefficient was yielded for the Compulsiveness subscale (i.e. .56 for girls and .64 for boys) when the AMPS was administered to a sample of students in sixth to eighth grades. In another study conducted among subjects in fourth and fifth grades, the reliability of the Compulsiveness subscale was found to be remarkably lower when tested among boys, but not girls (Rice, Kubal, and Preusser, 2004). Rice and Preusser (2002) speculate that Compulsiveness could be more bound to contextual factors than the
other dimensions of perfectionism (i.e. Sensitivity to Mistakes, Contingent Self-Esteem and Need for Admiration). It may thus be meaningful for future studies to examine different contextual factors (e.g. community influences) that may contribute to variations in the Compulsiveness subscale.

The low reliability of the Sensitivity to Mistakes subscale in this study is a surprise. The factor has been regarded as a core dimension of perfectionism and a reliable key characteristic of maladaptive perfectionism in most of the existing perfectionism instruments. Its high internal consistency has caused it to be regarded as suitable for screening and diagnostic purposes (Frost, Heimberg, Holt, Mattia, et. al, 1993; Parker, 1997; Rice et al., 1998; Rice & Preusser, 2002). Nevertheless, researchers note that what matters most in a measurement is not the internal consistency, but the meaningfulness of the domain in the research and the validity of the measurement (John & Benet-Martinez, 2000; Schmitt, 1996). The present findings suggest that the respective items in the Compulsiveness and Sensitivity to Mistakes subscales may not have adequately illustrated the two relevant dimensions of perfectionism in Chinese students. Future studies should refine the items by using multiple methods, such as interviews and behavioral observations, to better capture the dimensions.

Moreover, Rice and Preusser (2002) suggested that Sensitivity to Mistakes, as an indicator of maladaptive perfectionism, was negatively associated with the other three factors. A different picture was revealed in this Chinese sample. A positive correlation was found among all four factors. This implies that Sensitivity to Mistakes is adaptively perceived by Chinese students along with other adaptive factors (i.e. Contingent Self-Esteem, Compulsiveness, and Need for Admiration). Unlike the Western conception, the present findings reflect that the connotation of failure can, in certain contexts, be positive to Chinese primary students. As the traditional Chinese saying goes, failure is the precedence of success (shi bai nai cheng gong zhi mu), it is possible that Chinese primary students can acknowledge the remedial value of their failures and are less likely to shy away from their mistakes. The phenomenon is also reasonable in light of Confucius' teachings and supports from the wealth of literature on Chinese parenting. Chan (2008) suggests that, among 1041 Hong Kong Chinese students aged 9 to 17, the goal to learn and the goal to prove one's ability are not regarded as independent, but are equally associated with social or familial goals. In the hope of justifying their effort expended, they persistently strive for self-improvement by learning from mistakes. Achieving academically is commonly viewed as the most crucial task among Hong Kong Chinese students (Kashdan and Yuen, 2007), and parental beliefs about students' ability to achieve impact directly on their academic outcomes (Phillipson, 2010).

In summary, the present findings provide support to the construct validity of the AMPS, and in turn, contribute to the future investigation of perfectionism in Chinese primary students. The discrepancies reflected in our findings in comparison to those from previous studies offer insights to researchers and educators in understanding the perfectionistic tendencies of younger students. This research is nevertheless limited by the sole reliance on a single self-report measure (Rice & Preusser, 2002). Item responses could be biased if the participants attempted to make their responses conform to social desirability instead of reporting true personal preferences. Moreover, the single self-report measure may not be able to capture all the dimensions of perfectionism in Chinese primary students. Recalling that previous studies revealed irregularities in the construct of perfectionism in Chinese college students (Wang et al., 2007; Zi, 2003), the present study has provided empirical evidence which adds to the existing literature to suggest that an irregular pattern of perfectionism is also present in Chinese primary students. Researchers should revisit the AMPS by multiple methods to verify its construct validity. Further, cross-cultural studies could be conducted in the future to increase the generalizability of the AMPS. As contended by Wang et al. (2007), the conceptualization of perfectionism may differ among Chinese from different geographical locations and cultures. Primary students in Mainland China, Singapore, and Taiwan may perceive the connotation of perfectionism differently.
due to the variation in living environment, social values, and educational system. More research effort is warranted to better define the conceptualization of Chinese perfectionism from a holistic perspective, as well as to increase the validity of the AMPS for research and practical uses.

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