

# Perfectionism and Self-Development: Implications for College Adjustment

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*Cluster analyses supported the existence of 2 groups of perfectionists (labeled "adaptive" and "maladaptive") and a group of nonperfectionists in a sample (N = 312) of college students. Maladaptive perfectionists evidenced the poorest adjustment of all 3 groups. Adaptive perfectionists and nonperfectionists generally evidenced comparable aspects of emotional adjustment and academic integration. No differences between groups were observed in cumulative grade point average. Adaptive and maladaptive perfectionists reported disruptions in self-development. Differences between the perfectionist groups suggested that the roles of idealized parental images in self-development might be important sorting points for adaptive or maladaptive trajectories toward perfectionism.*

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**A**s constructs, perfectionism and narcissism have rich conceptual histories. Although the tenor in the literature has been a decided emphasis on the maladaptive aspects of these constructs, both lend themselves to relatively healthy as well as unhealthy implications for adjustment and both seem to influence developmental mental health trajectories. For example, in Kohut's description of self-development (Kohut, 1971, 1977), perfectionism and self-development seem to be intertwined very early in development. The ways in which children's perfectionistic and narcissistic needs are met by parents play a crucial role in the cohesiveness of the child's self-development and in the management of self-esteem. *Healthy narcissism*, the cohesive self according to Kohut and Wolf (1978), emerges as a result of what he described as "good-enough" parental responsiveness to children's mirroring and idealizing needs. Specifically, children need to experience admiration of their "vigour [sic], greatness, and perfection" (Kohut & Wolf, 1978, p. 414) by parent figures ("I am perfect, you must admire me"). Children also need to view parent figures as terrific and all-powerful ("You are perfect, and I am a part of you"). According to Kohut, mild disruptions of admiration or idealization are necessary for healthy self-development. When grandiose needs are adequately met, the child, and later the adult, can be expected to develop assertiveness and a healthy expression of ambitions. Moreover, when idealization needs are met, realistic admiration of others and a clear sense of goals and ideals ensue. These characteristics help ensure subsequent adjustment outcomes when the child or adult is confronted with challenging experiences or disappointments.

Chronic disruptions in meeting grandiose and idealization needs result in stagnated self-development and pathological narcissism. For example, children who do not experience reasonable empathic resonance from parents have limited capacity to manage self-esteem as adults, expect others to admire them, and are vulnerable to shame and embarrassment (Patton & Robbins, 1982). These individuals may be exceedingly sensitive to critical feedback, to the point that they respond aggressively to ego threats (Bushman & Baumeister, 1998). According to Kohut and Wolf (1978), children (then adults) who have unavailable or unsuitable targets for idealization continually seek out others (or ideas, religious conversions, political movements) to provide ideals and soothing caretaking functions that were absent or disappointed in parent-child interactions. In sum, then, healthy narcissism or healthy self-development denotes authentic self-confidence, capacity for empathy, assertiveness, ambitions, and intact self-esteem. *Unhealthy narcissism* denotes a veneer of self-confidence housing an otherwise fragile sense of self, with unclear ambitions other than needing to feel superior to, and admired by, others.

The development of perfectionism has also been framed within models emphasizing self-development, parental responsiveness, and the regulation of self-esteem. For example, Hamachek (1978) linked the development of what he called "normal" perfectionism to observing a parent experiencing enjoyment and satisfaction from flexible adherence to high standards, or from observing disorganized parents and then wanting to impose order or organization on an otherwise disorganized system. The self-esteem of normal perfection-

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ists was not expected to be irreparably damaged when standards were not met or failures were experienced. On the other hand, "neurotic" perfectionists were described as experiencing something of a self-esteem bind. According to Hamachek, neurotic perfectionists experience considerable concern regarding their performance and meeting high standards, but even when standards are met or projects impeccably completed, self-esteem remains low, absent, or vulnerable. Hamachek suspected that neurotic perfectionism developed from children's need for acceptance from parents who hold high standards of accomplishment but who never are satisfied with their children's performance or chronically are inconsistent with their approval.

Thus, the conceptual literature provides some parallels in the development of perfectionism and self-development or narcissism. These parallels include aspects of healthy and unhealthy development of these characteristics, particularly in their impact on self-esteem; the quality and availability of parental responsiveness; and reactions to or concerns about criticism or failure. These characteristics of perfectionism and narcissism have been explored in several independent lines of inquiry. The literatures have benefited from the development of multidimensional assessments that have emerged from rigorous psychometric studies. For example, Emmons (1984, 1987) factor analyzed the Raskin and Hall (1979) Narcissistic Personality Inventory (NPI) and found support for four narcissism factors: Exploitativeness/Entitlement, Leadership/Authority, Superiority/Arrogance, and Self-Absorption/Self-Admiration. Although Emmons (1984) found that, with the exception of Exploitativeness/Entitlement, these dimensions correlated significantly and positively with self-esteem, others have not found consistently similar correlations between narcissism and self-esteem (Bushman & Baumeister, 1998; Rhodewalt & Morf, 1995). The *adaptiveness* of narcissism has been argued in studies finding that Leadership/Authority predicts less psychological distress and strong social support (Rhodewalt & Morf, 1995). The *maladaptiveness* of narcissism is supported in significant associations between narcissism and increased psychological distress, less agreeableness, less social support, and greater tendency to react with aggression to ego threats (Bushman & Baumeister, 1998; Rhodewalt & Morf, 1995).

Robbins and Patton (1985) developed a measure of grandiosity (the Superiority subscale) and idealization (the Goal Instability subscale) to reflect major components of narcissism (or self-development) according to Kohut's theory. Robbins and Patton (1985) argued that grandiosity and idealization are "normally occurring self-expressive trends" in self-development that can be used to increase understanding of "functional and dysfunctional" development (p. 222). Indeed, they found that continued need for idealization (goal instability) was significantly correlated with lower self-esteem, but greater grandiosity (superiority) was unrelated to self-esteem. The former finding suggests that self-esteem is enhanced when idealization needs are adequately met early in development. The nonsignificant association between grandiosity and self-esteem suggests that although narcissists

may expect or demand admiration from others, such demands may do little to improve self-esteem. In subsequent research, Robbins (1989) found that grandiosity (superiority) was associated with irritability, impulsivity, and drug abuse. Idealization (goal instability) was associated with social withdrawal, interpersonal hypersensitivity, depression, and anxiety.

Research on perfectionism has also included exploration of adaptive and maladaptive dimensions. For example, exploratory and confirmatory factor analyses of multidimensional measures of perfectionism have consistently revealed "two conceptually unambiguous factors" (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993, p. 124) that tap adaptive and maladaptive aspects of perfectionism. Typically, one factor taps excessive concerns about making mistakes, doubts about one's behavior, and the experience of one's parents as being excessively critical. This factor consistently predicts many problematic psychological outcomes such as depression, anxiety, eating disorders, and substance abuse (Axtell & Newlon, 1993; Blatt, 1995; Broday, 1988; Rice, Ashby, & Slaney, 1998). A second perfectionism dimension is typically composed of high personal standards and organization. This dimension tends to be unrelated to depression but significantly correlates with positive affect and with academic performance and adjustment (Parker, 1997; Slaney, Ashby, & Trippi, 1995). The association between adaptive perfectionism and self-esteem has been inconsistent, with some reports revealing significantly positive correlations and others finding no significant association (Rice et al., 1998). Thus, although maladaptive perfectionism and narcissistic idealization (goal instability) consistently correlate with low self-esteem, adaptive perfectionism seems to relate to self-esteem in a manner similar to narcissistic grandiosity or superiority (sometimes correlations are positive, sometimes they are negligible).

In this study, we were particularly interested in the way in which perfectionism and self-development may predict various indicators of adjustment. We gathered comparable data from two samples. Based on previous factor analyses (e.g., Frost et al., 1993) and cluster analyses (Parker, 1997), we hypothesized that two types of perfectionists (and one group of nonperfectionists) would emerge when scores on multiple subscales of perfectionism were clustered. Adaptive perfectionists were expected to evidence healthy aspects of self-development and robust self-esteem. They were also expected to show high levels of college academic and interpersonal integration and a low level of depression. Maladaptive perfectionists were expected to report significant difficulties, including aspects of disrupted self-development, problematic college adjustment, and depression.

## METHOD

### *Participants and Procedure*

Two groups of undergraduates participated in the study. The first group consisted of 134 students (36 men, 92 women, 6 with missing data for gender). The second group consisted of 178 students (34 men, 141 women, 3 with missing gender

data). There were no differences between the groups on demographic characteristics or the major constructs of interest. All participants were recruited from a large, state university in the north central region of the United States. Participants ranged in age from 17 to 55 years ( $M = 21.02$ ,  $SD = 4.13$ ). Because the groups predominantly comprised young adult college students, socioeconomic status was examined in terms of parent education and parent occupational prestige (Stevens & Hoisington, 1987). Approximately 25% percent of the participants indicated that their mothers (and 21% of the fathers) had completed high school, another 35% of the mothers (29% of the fathers) had post-high-school training, 21% had mothers (and 24% had fathers) who had completed college, and 14% had mothers (23% had fathers) who completed graduate or postbachelor's training. About 65% of the mothers and 86% of the fathers were reported to be working in full-time jobs outside the home. The average occupational prestige score for mothers was 43.53 ( $SD = 15.15$ ) and for fathers was 51.93 ( $SD = 13.09$ ). These scores indicated that parents, on average, were employed in technical, sales, administrative support, and managerial occupations.

Participants were enrolled in multisection undergraduate courses in personal adjustment, substance abuse, and communications. These courses draw students with diverse majors across campus. Most of the participants majored in social sciences (25%), communications (24%), business (17%), education (10%), human ecology (7%), natural science (5%), and nursing (5%). Nearly 60% ( $n = 182$ ) of the sample had completed four or fewer semesters at the university. Approximately 85% of the sample was White/European American, 8% Black/African American, 3% Asian, 2% Native American, and 2% multicultural mixed race. Participants completed measures in group settings and typically received extra course credit for research participation.

### Instruments

**Perfectionism.** The Multidimensional Perfectionism Scale (MPS; Frost, Marten, Lahart, & Rosenblate, 1990) contains 35 items designed to tap different aspects of perfectionism. Participants respond to the items using a 5-point scale (1 = *agree strongly* through 5 = *disagree strongly*). Six subscales can be scored on the MPS: Concern over Mistakes (9 items), Personal Standards (7 items), Parental Criticism (4 items), Parental Expectations (5 items), Doubts About Actions (4 items), and Organization (6 items). Items were coded and subscales scored such that higher scores indicated greater perfectionism. Higher order composites of these subscales have emerged in exploratory and confirmatory factor analyses of the MPS. Adaptive striving or healthy perfectionism is measured by the Personal Standards and Organization subscales. The other four subscales tend to measure maladaptive perfectionism (Frost et al., 1993; Rice et al., 1998). Frost et al. (1990) and Frost et al. (1993) have established the reliability and validity of the subscales. Cronbach's coefficient alphas for the MPS subscales range from .78 to .92 (Frost, Lahart, & Rosenblate, 1991). The subscales and higher order dimensions relate in

expected directions with other measures of perfectionism and with measures of emotional functioning (Frost et al., 1993; Rice et al., 1998; Slaney et al., 1995).

**Self-development.** Self-development was measured with the Superiority and Goal Instability Scales (SGIS; Robbins & Patton, 1985). The SGIS yield two indexes of "normally occurring self-expressive trends" for grandiosity and idealization. The subscales are labeled Goal Instability (idealization) and Superiority (grandiosity) and are designed to tap the outcomes of self-development according to Kohut (1971, 1977). For example, Kohut (1971, 1977) argued that children's healthy needs for admiration and idealization would, in the course of good-enough parental responsiveness, yield assertiveness, appropriate expression of ambitions and life directions, and the capacity to regulate self-esteem. The SGIS contain 20 items (10 for each subscale). Responses to items are made using a 6-point scale from 1 = *strongly agree* through 6 = *strongly disagree*. Items represent maladaptive aspects of self-development; therefore, higher scores indicate more favorable self-development or healthy narcissism. Both subscales evidence adequate internal consistency estimates and test-retest reliability in the .76 to .81 range (Robbins & Patton, 1985). The subscales seem to tap the dimensions intended, and they relate in expected directions with other psychological indicators, including other measures of narcissism (Robbins, 1989; Robbins & Patton, 1985).

**Self-esteem.** The Rosenberg Self-Esteem Inventory (Rosenberg, 1965) was used to measure self-esteem. The scale consists of 10 statements responded to on a 4-point scale from 1 = *strongly agree* through 4 = *strongly disagree*. Higher scores on the measure indicate positive self-esteem or a general perception of self-worth. Adequate reliability for the measure has been demonstrated and summarized by Goldsmith (1986) and Crandall (1973). Estimates of internal consistency reliability have ranged from .86 to .93 (Goldsmith, 1986). Test-retest reliability over a 2-week period was  $r = .85$  (Crandall, 1973). Goldsmith (1986) and Rosenberg (1965, 1979) reported that the measure correlated with other scales in expected directions (e.g., negative correlations with depression and anxiety).

**Depression.** Depression was assessed with the 20-item Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). Respondents use a scale from 0 = *rarely or none of the time* through 3 = *most or all of the time* to report the frequency with which they experienced scale items during the previous week. Higher scores indicate greater depression. Single factor and second-order factor models for the CES-D have been supported in exploratory and confirmatory factor analyses (Radloff, 1977; Sheehan, Fifiield, Reisine, & Tennen, 1995). Cronbach's coefficient alpha for the CES-D has been approximately .90 in studies with different populations (Breslau, 1985; Radloff, 1977). CES-D scores have correlated with clinical interviews of depression and with other measures of emotional adjustment (Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977). However, the CES-D is not designed to diagnose depression. Santor and Coyne (1997) cautioned against the use of CES-D cut-

off scores to identify cases or diagnoses of depression. Nevertheless, numerous studies have indicated a cutoff score of 16 to identify people with significant depression (Breslau, 1985; Weissman et al., 1977).

**Academic and social integration.** Academic and social integration were measured with the set of items that Cabrera, Nora, and Castañeda (1993) used in their study of college persistence. Three items were used to measure dimensions of academic integration: "I have performed academically as well as I anticipated I would at [name of institution]," "I am satisfied with my course curriculum at [institution]," and "I am satisfied with my academic experience." Two other items tapped perceived social integration at the university: "Since coming to [institution], I have developed close personal relationships with other students," and "It has been easy for me to meet and make friends with other students at [institution]." These items were based on the work of researchers who investigate college student adjustment and retention (Bean, 1982; Pascarella & Terenzini, 1979, 1980). Participants responded to the items using a scale ranging from 1 = *not at all like me* through 5 = *very much like me*. Higher scores on these items indicated greater academic and social adjustment. Cabrera et al. (1993) found that the items produced adequate structure coefficients on academic and social integration factors in the measurement model used in their research.

**Grade point average.** Student self-reported cumulative grade point average (GPA) also was examined in this study. The scale for GPA could range from 0 to 4.0, with higher GPAs indicating greater academic achievement. In the present study, 51 students were in their first semester at the university and did not yet have a cumulative GPA (and two students left the item blank). For the remaining 259 students, GPA ranged from 1.00 to 3.90 ( $M = 2.91$ ,  $SD = 0.51$ ).

## RESULTS

All subscales were assessed for internal consistency. Cronbach's coefficient alphas as well as overall sample descriptive statistics are presented in Table 1. The results revealed adequate

internal consistency for the measures, with Cronbach's coefficient alphas ranging from .76 to .91. In addition, scale ranges and means were comparable to other studies using similar samples.

Two clusters of perfectionists (adaptive, maladaptive) and one cluster of nonperfectionists have emerged in previous research using the Frost et al. (1990) MPS (Parker, 1997). In this study, and following recommendations for a two-step approach to cluster analyses (Hair, Anderson, Tatham, & Black, 1995; Parker, 1997), MPS subscale scores were standardized and submitted to an initial hierarchical cluster analysis, which was followed by a nonhierarchical analysis. Centroids from the hierarchical analysis were used as initial seed points in the subsequent nonhierarchical cluster analysis. Finally, the centroids derived from the first group of participants (in the latter nonhierarchical analysis) were used as starting points for a cross-validation of the cluster results with the second group.

In the hierarchical cluster analysis, Ward's linkage method and the squared Euclidian distance procedure were used. Agglomeration coefficients (or within-cluster sum of squares) were examined to assess the degree of change or heterogeneity in moving from one cluster solution to another. Relatively large increases in agglomeration coefficients suggest that very different and internally homogenous clusters are being identified. The percentage of change in agglomeration coefficients between cluster solutions is an index of relative change in cluster homogeneity (Hair et al., 1995, p. 448). The data from the first group of students supported a 3-cluster solution in the initial hierarchical cluster analysis. The percentage of change in agglomeration coefficients indicated a 32% change when moving to the 3-cluster solution. The next largest proportional change in coefficients was 12% for a 16-cluster solution.

Cluster centroids (subscales means) derived from the hierarchical analysis were then used as initial seed points in a k-means (nonhierarchical) cluster analysis. In the nonhierarchical procedure, convergence on the final clusters was achieved after six iterations and yielded 66 participants in one cluster (49%, 20 men, 42 women), 26 participants in another

TABLE 1  
Descriptive Statistics and Instrument Reliabilities

Measure	N	Scale Ranges		M	SD	Cronbach's Coefficient $\alpha$
		Possible	Actual			
Concern Over Mistakes	311	9-45	9-44	21.51	6.76	.87
Personal Standards	312	7-35	11-35	23.75	5.42	.82
Parental Expectations	312	5-25	5-25	14.76	4.12	.76
Parental Criticism	311	4-20	4-20	8.21	3.19	.76
Doubts About Actions	311	4-20	4-20	9.95	3.28	.76
Organization	311	7-30	7-30	23.63	4.99	.91
Goal Instability	311	10-60	14-60	41.71	9.34	.85
Superiority	311	10-60	12-57	33.46	8.20	.76
Rosenberg Self-Esteem Inventory	312	10-40	15-40	32.97	5.53	.90
CES-D	312	0-60	0-49	16.74	10.84	.91
Academic Integration	309	3-15	3-15	10.67	3.20	.82
Social Integration	311	2-10	2-10	8.18	2.16	.82

Note. CES-D = Center for Epidemiological Studies-Depression Scale.

cluster (19%, 4 men, 21 women), and 42 participants in a third cluster (31%, 12 men, 29 women); 6 participants had missing data for gender. There was not a significant difference in the gender distribution across these clusters,  $\chi^2(2, N = 128) = 2.57, p > .05$ .

Centroids derived from the nonhierarchical cluster analysis were then used as initial seed points in a nonhierarchical cluster analysis on data from the second group of participants. A solution for this analysis converged after four iterations. There were 84 participants in the first cluster (47.5%, 14 men, 68 women; 2 participants did not report gender), 47 in the second (26.5%, 11 men, 36 women), and 46 in the third (26%, 8 men, 37 women; 1 participant did not report gender). The gender distribution across the clusters was not significantly different,  $\chi^2(2, N = 174) = 0.81, p > .05$ .

Average MPS subscale scores for the clusters derived from the different groups of students were compared in three multivariate analyses. In each analysis, the six MPS subscales served as the dependent variables and cluster membership served as the independent variable. The first analysis revealed no differences on MPS subscale scores between the two groups of students,  $F(6, 143) = 1.02, p > .05$ . Likewise, no differences emerged between the groups on MPS scores for the second or third clusters,  $F(6, 66) = 1.30$ , and  $F(6, 81) = 0.75, p > .05$ . Thus, the cluster solution seemed to be cross-validated between the groups, and the groups were combined for subsequent analyses. The between-cluster means and standard deviations for the MPS subscales (unstandardized) for the entire sample appear in Table 2.

Multivariate analysis of variance revealed significant differences between clusters on the MPS subscales, Wilks's  $\Lambda = 0.18, F(12, 606) = 68.67, p < .0001$ . One-way analyses of variance (ANOVAs) revealed significant cluster differences for each MPS subscale (all  $ps < .001$ ). Results from Tukey's HSD (honestly significant difference) pairwise comparisons (adjusted for unequal sample sizes) facilitated the labeling of the clusters. For example, participants in Cluster 1, compared with the other clusters, evidenced generally lower scores on MPS subscales, suggesting that this group would be nonperfectionistic. High concerns about making mistakes, moderately high personal standards, high parental criticism,

and high self-doubts were consistent with theoretically based descriptions of maladaptive perfectionists that seemed to characterize participants in Cluster 2. Cluster 3 revealed participants with high personal standards and organization, moderate concerns about making mistakes, and high expectations (but low criticism) from parents. Individuals in this group seemed to be adaptive perfectionists.

The clusters were next compared on the measures of self-development, self-esteem, depression, academic integration, social integration, and GPA. Recommendations from Huberty and Morris (1989) were followed regarding the use of multivariate and univariate analyses. Specifically, we grouped our analyses according to constructs (self-development, emotional well-being, and college adjustment), conducted separate multivariate analyses on these constructs, explored any significant multivariate effects with separate ANOVAs for each dependent variable, then examined significant ANOVAs with pairwise comparisons. The significance level for each ANOVA was adjusted with a conservative Bonferroni correction ( $.05/7 = .007$ ). Means and standard deviations for these analyses appear in Table 3.

Significant differences emerged in the analyses of the self-development subscales, Wilks's  $\Lambda = 0.71, F(4, 612) = 29.20, p < .0001$ . Univariate analyses revealed significantly different average scores between clusters on Goal Instability,  $F(2, 307) = 42.87, p < .001$ , and on Superiority,  $F(2, 307) = 17.09, p < .001$ . Post hoc, Tukey HSD pairwise comparisons (adjusted for unequal sample sizes) on average indicated significantly higher ( $p < .05$ ) Goal Instability scores for adaptive perfectionists and nonperfectionists than for maladaptive perfectionists (see Table 3). (Recall that higher scores on the Goal Instability reveal *more* goal stability and thus better self-development.) Pairwise comparisons also indicated that adaptive and maladaptive perfectionists were not significantly different, on average, in terms of Superiority subscale scores, but these groups did score lower, on average, than nonperfectionists (see Table 3).

Significant differences emerged between the clusters on emotional well-being, Wilks's  $\Lambda = 0.75, F(4, 614) = 23.90, p < .0001$ . One-way ANOVAs indicated significant differences between clusters on Self-Esteem,  $F(2, 308) = 40.71, p < .0001$ .

TABLE 2  
Multidimensional Perfectionism Scale Means and Standard Deviations by Cluster Group

Cluster	Concern Over Mistakes		Personal Standards		Parental Expectations		Parental Criticism		Doubts About Actions		Organization	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Nonperfectionists (n = 150)	17.11 <sup>a</sup>	3.94	20.19 <sup>a</sup>	4.02	12.19 <sup>a</sup>	2.72	6.65 <sup>a</sup>	2.15	8.67 <sup>a</sup>	2.74	22.30 <sup>a</sup>	4.65
Maladaptive perfectionists (n = 73)	29.10 <sup>b</sup>	5.58	25.53 <sup>b</sup>	4.61	17.70 <sup>b</sup>	3.91	11.86 <sup>b</sup>	3.07	12.99 <sup>b</sup>	2.98	21.90 <sup>a</sup>	4.92
Adaptive perfectionists (n = 88)	22.71 <sup>c</sup>	5.22	28.32 <sup>c</sup>	3.72	16.68 <sup>b</sup>	3.60	7.85 <sup>c</sup>	2.25	9.61 <sup>c</sup>	2.74	27.34 <sup>b</sup>	3.52

Note. Values with different superscripts indicate significant differences between clusters (Tukey post hoc comparisons,  $p < .05$ ).

TABLE 3

## Means and Standard Deviations of Self-Development, Self-Esteem, Depression, and Adjustment by Perfectionism Group

Cluster	Goal Instability		Superiority		Self-Esteem		CES-D		Academic Integration		Social Integration		GPA	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Nonperfectionists	43.53 <sup>a</sup>	8.61	36.11 <sup>a</sup>	7.71	34.56 <sup>a</sup>	4.73	12.99 <sup>a</sup>	8.90	10.69 <sup>ab</sup>	3.18	8.56 <sup>a</sup>	1.80	2.88	0.50
Maladaptive perfectionists	33.88 <sup>b</sup>	8.46	31.89 <sup>b</sup>	8.41	28.40 <sup>b</sup>	5.64	24.98 <sup>b</sup>	11.10	9.66 <sup>b</sup>	3.45	7.08 <sup>b</sup>	2.69	2.86	0.57
Adaptive perfectionists	45.07 <sup>a</sup>	7.60	30.36 <sup>b</sup>	7.40	33.97 <sup>a</sup>	4.67	16.26 <sup>c</sup>	10.06	11.46 <sup>a</sup>	2.84	8.45 <sup>a</sup>	1.95	3.00	0.49

Note. See Tables 1 and 2 Notes. GPA = grade point average. Post hoc analyses were conducted only after significant ( $p < .007$ ) one-way ANOVA emerged.

.001, and CES-D,  $F(2, 308) = 37.01, p < .001$ . Tukey HSD pairwise comparisons (see Table 3) revealed that adaptive perfectionists and nonperfectionists had significantly higher Self-Esteem scores, on average, than did maladaptive perfectionists. Likewise, maladaptive perfectionists reported significantly higher CES-D scores than did adaptive or nonperfectionists, although adaptive perfectionists did score significantly higher than nonperfectionists on depression. It should be recalled that a cutoff score of 16 on the CES-D is typically used to differentiate people with significant depression from those without depression. The maladaptive perfectionists scored, on average, about a full standard deviation above that cutoff score.

Significant differences between clusters also emerged on the measures of college adjustment, Wilks's  $\Lambda = 0.91, F(6, 502) = 3.89, p < .001$ . Univariate analyses revealed significant differences on Academic Integration,  $F(2, 253) = 54.39, p < .005$ , and Social Integration,  $F(2, 253) = 33.68, p < .001$ , but not on GPA,  $F(2, 253) = 0.37, p < .240$ . In the Tukey HSD comparisons, maladaptive perfectionists reported significantly less academic integration than was reported by adaptive perfectionists. Maladaptive perfectionists also reported significantly lower social integration compared with the other two groups (see Table 3).

Hierarchical multiple regression analyses were conducted to examine the combined and individual effects of perfectionism and self-development (Goal Instability and Superiority) in the prediction of self-esteem, depression, academic and social integration, and GPA. In these analyses, dummy-coded adaptive (1) and maladaptive (0) perfectionism groups were used and the nonperfectionists were excluded because of our interest in perfectionists. Separate analyses were conducted for the dependent measures. The summary statistics for these analyses appear in Table 4.

The main effects of perfectionism and self-development combined to account for 46% of the variance in Self-Esteem scores,  $F(3, 156) = 44.21, p < .001$ . Tests of individual standardized regression coefficients revealed each of the three variables was a significant predictor even after controlling for the effects of the other predictors (see Table 4). The directions of effects indicated that more adaptive perfectionism and greater certainty about goal directions predicted

higher self-esteem. Alternatively, less superiority (grandiosity) predicted higher self-esteem.

The predictors combined to account for 36% of the variance in CES-D scores,  $F(3, 156) = 29.20, p < .001$ . The tests of individual coefficients (see Table 4) indicated that, after controlling the other predictors, only Goal Instability emerged as a significant predictor of depression. The direction of this effect indicated that less certainty about goal directions predicted more depression.

Approximately 25% of the variance in Academic Integration scores was explained by the main effects of perfectionism and self-development,  $F(3, 153) = 17.11, p < .001$ . Similarly, in the prediction of Social Integration, the predictors accounted for 19% of the variance,  $F(3, 155) = 11.89, p < .001$ . Testing of individual beta coefficients indicated that greater goal stability predicted better academic and social integration. In the final set of analyses, the combined effects of perfectionism and self-development did not account for significant variability in GPA,  $R^2 = .05, F(3, 129) = 2.38, p > .05$ . Beta coefficients for this nonsignificant effect were not examined.

TABLE 4

## Hierarchical Regression Analyses of Perfectionism and Self-Development Predicting Self-Esteem, Depression, and College Adjustment

Criterion/Predictor	<i>B</i>	<i>SE B</i>	$\beta$
Self-Esteem			
Perfectionism	1.83	0.84	0.16*
Goal Instability	0.33	0.04	0.55**
Superiority	-0.09	0.04	-0.13*
CES-D			
Perfectionism	-1.47	1.79	-0.06
Goal Instability	-0.65	0.09	-0.56**
Superiority	0.05	0.09	0.04
Academic Integration			
Perfectionism	0.02	0.55	0.00
Goal Instability	0.17	0.03	0.50**
Superiority	0.02	0.03	0.04
Social Integration			
Perfectionism	0.42	0.43	0.09
Goal Instability	0.08	0.02	0.33**
Superiority	-0.05	0.02	-0.18

Note. See Table 1 Note.

\* $p < .05$ . \*\* $p < .001$ .

## DISCUSSION

As hypothesized, two clusters of perfectionists and one cluster of nonperfectionists emerged and were cross-validated in this study. The patterning of MPS subscale scores between the clusters was remarkably similar to that reported by Parker (1997) in his study of academically talented sixth graders. Moreover, the results were consistent with theoretically derived descriptions of perfectionist typologies (e.g., Hamachek, 1978). Specifically, adaptive perfectionists in this study were distinguished by high standards and organization, along with moderate concerns about making mistakes, high expectations (but low criticism) from parents, and few doubts about their actions. This descriptive combination indicates that adaptive perfectionists hold themselves to high expectations but do not worry excessively about meeting those expectations. Although maladaptive perfectionists were similar to adaptive perfectionists in that both groups reported relatively higher personal standards than did nonperfectionists and both groups acknowledged their perception of high parental expectations, the maladaptive group reported more parental criticism, self-doubt, and concerns about mistakes than did the other groups. Thus, the typical maladaptive perfectionist holds high personal standards but also seems to experience some intra- and interpersonal turmoil associated with those expectations.

It is noteworthy that about half of our sample was clustered into the perfectionism groups, suggesting that dimensions of perfectionism are relatively pervasive personality constructs. Indeed, the pervasiveness of perfectionism in a nonclinical sample such as the one reported here may explain the frequent presence of perfectionism in numerous emotional and behavioral difficulties (see Blatt, 1995). In our sample, maladaptive perfectionists reported considerably worse emotional, academic, and social well-being when compared with the other groups. Conversely, adaptive perfectionists evidenced self-esteem, academic integration, and social integration that was comparable to that of nonperfectionists, although they also acknowledged more depression. Although differences in the groups are important to acknowledge, it should also be pointed out that no differences between the groups were observed on GPA. The emotional and interpersonal correlates of maladaptive perfectionism suggest that this comparable level of academic achievement comes with decided costs to well-being. Thus, the concerns and worries of maladaptive perfectionists do not offer them any additional academic achievement advantages over other students. Despite being academically on par with other students, they feel considerably worse and do not consider themselves to be as academically well-integrated as the other students. Although this finding is compelling, it should be pointed out that, as a single measure, GPA has shortcomings as an indicator of academic achievement. Future studies might be designed to incorporate more comprehensive assessments of academic achievement.

Of particular note in the present study was that self-development along the idealization vector seemed to be

problematic for maladaptive perfectionists but better integrated for adaptive and nonperfectionists. Both groups of perfectionists acknowledged more grandiose needs than did nonperfectionists. These results suggest that perfectionism may develop from relatively unmet grandiose needs to be admired and from the quality of interactions with idealized parents. In particular, both groups of perfectionists described parents as having high expectations of them, but adaptive perfectionists described parents as being much less critical than the parents described by maladaptive perfectionists. It may be that the combination of criticism and high expectations from parents results in an internalized image of parents and, ultimately, of self as undesirable, with unclear goals and ideals. Perhaps as a consequence of this lack of direction, there is a pervasive sense of not being *good enough*, of not measuring up in terms of self-evaluations and internalized expectations for performance. The less cohesive self of the maladaptive perfectionist, in contrast to the adaptive perfectionist, suggests that perceived inadequacies at living up to those standards are more difficult to reconcile and more likely to generalize as being indicative of pervasively low self-worth.

In regression analyses, with one exception, the effects of one particular area of self-development (goal instability) proved consistently to be a significant predictor of emotional, social, and academic well-being. The exception was self-esteem, for which perfectionism and both areas of self-development (goal instability and superiority) were significant predictors. In this case, the effects of self-development and perfectionism were additive, with each accounting for significant and unique portions of the variance in self-esteem. It should be noted that the amount of variance in dependent variables accounted for by the perfectionism and self-development predictors was considerable, ranging from 19% to 46% of the variance.

Several inferences relevant to theory can be made from the tests of mean differences between perfectionism groups combined with the regression analyses. Both groups of perfectionists seem to need or expect more admiration from others than do nonperfectionists. Thus, it may be that insufficient empathic mirroring coupled with the relative adequacy of idealized parental images sets the stage for the development of perfectionism. Perhaps maladaptive perfectionism emerges when grandiose needs are not met and parents are inadequate for idealization. According to Kohut (1971, 1977; Kohut & Wolf, 1978), disruptions in self-development occur when the child's sense of perfection, omnipotence, and grandiosity are not admired and empathetically responded to. The results of chronic empathic failures on the part of parents include a fragile capacity to regulate self-esteem, increased vulnerability to shame and embarrassment, and ongoing dependence on others to validate the self. Perfectionism may be one avenue through which the regulation of self-esteem and validation from others may be achieved. The degree to which suitable figures for idealization are available and emotionally accessible may be the sorting point for the developmental trajectory toward maladaptive or

adaptive perfectionism. Parents (or other significant people in the child's life) who model and encourage high expectations of themselves and others, but do so without excessive tension in relationships or criticism toward others, may be the kind of *objects* suitable for idealization that lead to adaptive perfectionism. Alternatively, the combination of nonempathic or excessively critical parents (poorly suited for idealization) may encourage the development of maladaptive perfectionism. The current findings indicate that low self-esteem, depression, and less college integration are likely to result from the maladaptive trajectory, whereas a much better picture emerges from the adaptive trajectory.

There are several practical implications that can be drawn from the results of this study. As suggested by several authors (e.g., Rice et al., 1998), perfectionism, like self-development, should be viewed as a multidimensional as opposed to a unidimensional concept. That is, clients who present with perfectionistic qualities should not immediately be viewed as maladaptively oriented. Instead, the practitioner should assess the degree to which the perfectionistic qualities may be adaptive and then use those adaptive qualities in the therapeutic process. A focus on, and the use of, a client's strengths within the therapy process is consistent with commitment to an *assets and strengths* perspective. Alternatively, should it be determined that a client's perfectionism is more maladaptive in nature, the findings of this study would be quite useful in providing practitioners with knowledge regarding how they might conceptualize the client's difficulties (i.e., in terms of self-development processes). Admittedly, this conceptualization would need to be considered within the complex array of client and counselor variables in order to be useful in directing therapeutic interventions.

Another practice implication that can be drawn from the results of these studies resides in the area of prevention. Given what is known about the negative characteristics of maladaptive perfectionism (pervasive sense of not being good-enough, excessive self-doubt, excessive concern over making mistakes, critical self-evaluation) and their impact on well-being (depression, low self-esteem, anxiety), preventative activities might include identifying these characteristics in young children and intervening before the characteristics become an integrated part of the personality. Those who frequently come into contact with children (e.g., parents, teachers, counselors, coaches) could be involved in such efforts. In addition, given the number of suicides committed by depressed adolescents and young adults, it seems important to better understand if, and how, maladaptive perfectionism might contribute to perceived inability to cope with distress. It seems plausible that maladaptive perfectionists with vulnerable self-systems might be at risk for self-harm after significant or persistent failure experiences in academic or interpersonal activities. Having a better understanding of the possible impact of maladaptive perfectionism on depressive and suicidal tendencies could lead to more comprehensive preventative strategies by communities, schools, and universities.

The current study's correlational and cross-sectional design, as well as the sample limitations, should be considered when

weighing theoretical and applied inferences from the results. These inferences are best tested in longitudinal studies that would permit the tracking of developmental trajectories along perfectionism routes. Likewise, speculative interventions based on the current findings are best justified when examined in controlled longitudinal intervention research. For example, one implication is that the self-critical form of depression described by Blatt (1995) and others may, on the part of clients, represent an attempt to reconcile major disruptions in self-development. In this way, the development of perfectionism may be conceptualized as a central component of self-development rather than as a description of concerns about mistakes or personality traits associated with order or organization. Perhaps the intertwining of perfectionism with self-development is one reason for the limited effects short-term cognitive or interpersonal therapy have on altering (self-critical, maladaptive) perfectionism (Blatt, Zuroff, Quinlan, & Pilkonis, 1996). Working with clients to help them relinquish or decrease their maladaptive perfectionism may be analogous to asking someone to relinquish an integral part of their identity and may bring to fore considerable concerns about self-cohesion and fragmentation. Future research can shed additional light on the relative stability of perfectionism, the circumstances under which perfectionism changes (if it does), the resulting impact of such changes on important mental health indicators such as depression, and the link between perfectionism and identity.

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