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**Article:**

Kim, Lisa orcid.org/0000-0001-9724-2396, Chen, Lanhowe, MacCann, Carolyn et al. (2 more authors) (2015) Evidence for three factors of perfectionism::Perfectionistic Strivings, Order, and Perfectionistic Concerns. *Personality and Individual Differences*. pp. 16-22. ISSN: 0191-8869

<https://doi.org/10.1016/j.paid.2015.01.033>

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## **Perfectionistic Parenting and Perfectionistic Processes**

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## RUNNING HEAD: Perfectionism Structural Model

**Abstract**

There has been much disagreement over the factor structure of perfectionism. Most models distinguish between positive and negative aspects of perfectionism, but do not include distinct factors representing order and parental influences. We propose that these elements of perfectionism are theoretically distinct from broad positive and negative perfectionism factors. Therefore, we tested a four-factor model of perfectionism in a sample of undergraduate students ( $N = 208$ ) who completed the Almost Perfect Scale-Revised, and the Frost Multidimensional Perfectionism Scale. According to the chi-squared difference test and CFI differences, model fit significantly improved with: (a) Order as a separate factor; (b) Parental Influences as a separate factor, and (c) both Order and Parental Influences as separate factors. In addition, Order and Parental Influences were distinct from other factors in their associations with personality, self-esteem and performance expectations, suggesting a substantive difference between these and other aspects of perfectionism. We propose that a four-factor model of perfectionism makes theoretical sense, and that instruments assessing perfectionism may need to be updated accordingly.

**Keywords:** perfectionism; confirmatory factor analysis

## Perfectionistic Parenting and Perfectionistic Processes

### 1. Introduction

The Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013) defines perfectionism as a pathological personality trait—an aspect of extreme conscientiousness characterized by an insistence of flawlessness. This reflects a historical uni-dimensional perspective of perfectionism, closely associated with maladjustment and psychopathy (Burns, 1980). The dominant model of perfectionism is currently a multidimensional one that distinguishes adaptive from maladaptive perfectionism (Stoeber & Otto, 2006). However, there is no clear consensus on the type and number of dimensions within these two broad aspects of perfectionism. For example, structural analyses of the Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990) initially proposed six factors, although later research suggested different number of factors (cf. Cox, Enns, & Clara, 2002). Structural analyses derived from multiple perfectionism inventories predominantly favor a two-factor model, although several other models have also been proposed (e.g., Suddarth & Slaney, 2001). This study is unique for two reasons. First, we use two rating scales that encapsulate domain content for both *order* and *parental influences* factors, where previous structural models often did not include enough indicators of either of these for them to emerge as separate factors. Second, we test an a priori model justified by theory to include order and parental influences factors. Our proposed model postulates the existence of four factors of perfectionism: (a) Perfectionistic Strivings (the positive aspects of perfectionism); (b) Perfectionistic Concerns (the negative aspects); (c) Order (an over-emphasis on precision, tidiness, and neatness); and (d) Parental Influences (the degree to which perceived pressure from parents contributes to perfectionism). We compare three models to a two-factor baseline model of positive perfectionism (Perfectionistic

Strivings) versus negative perfectionism (Perfectionistic Concerns): (1) a three-factor model that splits Perfectionistic Strivings into Perfectionistic Strivings and Perfectionistic Concern; (2) a three-factor model that splits Perfectionistic Concerns into Perfectionistic Concerns and Parental Influences; and (3) a four-factor model that proposes Perfectionistic Strivings, Order, Perfectionistic Concerns, and Parental Influences. In this way, the importance of Order and Parental Influences as separate factors in a model of perfectionism is tested.

### **1.1. Nature of Perfectionism**

Stoeber and Otto (2006) posited that perfectionism consists of Perfectionistic Strivings and Perfectionistic Concerns factors, recommending that subscales relating to parental influences and order be omitted. However, we suggest that excluding these factors completely may be premature.

#### **1.1.1. Parental Influences**

There has been disagreement as to whether parental influences are a factor of perfectionism. Although parental influences are recognized as a core to the etiology of perfectionism (Burns, 1980; Hamachek, 1978; Pacht, 1984), Stoeber and Otto (2006) propose that they are developmental antecedents rather than features of perfectionism and should therefore be excluded from perfectionism models. The appropriateness of modeling developmental antecedents as part of personality rather than separate causal influences on personality is a complex issue. However, life course and narrative identity approaches to personality do not preclude an individual's understanding of early influences as part of personality (e.g., McAams & Olsen, 2010). We argue that perceptions of parental evaluation and parental goals add information to the characterization of perfectionism, and are therefore a useful part of the model.

When parental influences factors have been included, they have usually been modeled as part of the Perfectionistic Concerns factor (Suddarth & Slaney, 2001; Wigert, Reiter-

Palmon, Kaufman, & Silvia, 2012). However, parental influences differ in two key ways from other aspects of Perfectionistic Concerns: (a) they are intrapersonal rather than interpersonal, and (b) they represent a developmental antecedent rather than current maladaptive cognitions. Therefore, conceptualizing Parental Influences and Perfectionistic Concerns as separate dimensions is a theoretically feasible way to model perfectionism.

### **1.1.2. Order**

The inclusion of a perfectionism factor representing a preference and value for order and neatness has been inconsistent. Some have perceived such an order factor as a negligible aspect of perfectionism and justified their exclusion of this factor by the relatively low correlations with Personal Standards and a total perfectionism score (Frost et al., 1990) and its inability to differentiate between adaptive and maladaptive perfectionists (see for a review Slaney, Rice, & Ashby, 2002). However, order is integral in the definition of perfectionism as demonstrated in qualitative studies (Rice, Bair, Castro, Cohen, & Hood, 2003; Slaney & Ashby, 1996). In addition, empirical evidence supports its distinction from other aspects of perfectionism (e.g., in structural analyses of the APS-R and the FMPS; Bieling, Israeli, & Antony, 2004; Slaney et al., 2001). In this light, order should be included as a key part of perfectionism.

When order has been included, it has often been conceptualized as part of Perfectionistic Strivings (e.g., Rice, Lopez, & Vergara, 2005; Wigert et al., 2012). However, Order differs from other factors within Perfectionistic Strivings—Perfectionistic Strivings address the kind of perfectionistic standards one sets whereas Order addresses how a task will be executed to meet these standards (Frost et al., 1990). Öngen's (2010) findings also demonstrate differential predictive validity of Order versus Perfectionistic Strivings, bolstering the need to bifurcate Order from the Perfectionistic Strivings dimension.

## **1.2. Correlations of Perfectionism Factors with Conceptually Relevant Variables.**

In addition to structural tests of whether Order and Parental Influences are distinct factors, we will examine whether these are substantively different (as evidenced by differing correlations with key criteria). Differing associations with key correlates for Order versus Perfectionistic Strivings, and for Parental Influences versus Perfectionistic Concerns would provide additional evidence that these are genuinely distinct sub-traits of perfectionism. The paragraphs below outline our choice of personality, performance expectation and self-esteem as key correlates of perfectionism.

First, the Five-Factor Model of Personality is a widely accepted taxonomy of five higher-order personality traits consisting of Openness, Neuroticism, Conscientiousness, Agreeableness, and Extraversion (John & Srivastava, 1999). Two of these are conceptually relevant to perfectionism: Conscientiousness, the level of engagement in task- and goal-directed behaviors; and Neuroticism, the level of negative emotionality (John & Srivastava, 1999). Second, academic performance expectation is a strong correlate of GPA (Richardson, Abraham, & Bond, 2012), which has seldom been assessed in perfectionism research. Where it has been used, only Perfectionistic Strivings show significant correlations (e.g., Brown et al., 1999; Cox et al., 2002) and, therefore, is expected to do so in this study.

Third, perfectionism and self-esteem are inextricably linked (Hamachek, 1978). Hamachek proposed that ‘neurotic’ perfectionists set unrealistically high standards, driven by fear of failure and distorted mental processes and by extension, have lower self-esteem. On the other hand, ‘normal’ perfectionists set realistic and reasonable goals considering their own strengths and weaknesses. Their self-esteem is high because they attain a sense of pleasure from striving. However, self-esteem has consistently been negatively correlated with maladaptive perfectionism but not adaptive perfectionism (e.g., Ashby & Rice, 2002; Cheng, Chong, & Wong, 1999; Slaney et al., 2001). These collections of evidence together indicate

that Hamachek's (1978) theory that self-esteem is associated with perfectionism may only be appropriate for the maladaptive perfectionism dimensions.

### **1.3. This Study**

To assess the structural validity of perfectionism, four models of perfectionism were assessed by using subscale scores from the APS-R and FMPS: (1) *Model 1* is a two-factor model differentiating Perfectionistic Strivings (encompassing the adaptive aspects of perfectionism) from Perfectionistic Concerns (encompassing the maladaptive aspects of perfectionism); (2) *Model 2* is a three-factor model where the Perfectionistic Concerns factor of Model 1 is split into both a Parental Influences factor and a factor representing other Perfectionistic Concerns; (3) *Model 3* is also a three-factor model, but splits the Perfectionistic Striving factor from model one into an Order factor and a factor representing other (non-order) aspects of Perfectionistic Strivings; (4) *Model 4* is a four-factor model that includes both Order and Parental Influences as separate factors from Perfectionistic Strivings and Perfectionistic Concerns. Confirmatory factor analysis on the item parcels was conducted using AMOS 18.0.0 (Arbuckle, 2009). We hypothesize that Models 2 and 3 will show better fit to the data than Model 1, and that Model 4 will provide the best fit to the data. That is, we expect that both Order and Parental Influences are distinct factors. Moreover, we will examine criterion correlations for the factors in Model 4, with the expectation that: (a) Order and Perfectionistic Strivings will show significantly different correlations with criteria; and (b) Parental Influences and Perfectionistic Concerns will show significantly different correlations with criteria.



## 2. Method

### 2.1 Participants

First-year undergraduate psychology students participated in the study for course credit ( $N = 208$  [151 females] after excluding 14 participants with zero variability in their ratings). Five participants did not complete the Academic Performance Expectation question. The ages of the sample ranged between 16 and 47 years ( $M = 19.61$ ,  $SD = 4.07$ ).

### 2.2 Measures

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

This 23-item self-report questionnaire measures three dimensions of perfectionism: High Standards (7 items; e.g., ‘I try to do my best at everything I do’), Order (4 items; e.g., ‘I am an orderly person’), and Discrepancy (12 items; e.g., ‘My performance rarely measures up to my standards’). Participants respond on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

#### 2.2.2 Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990).

This 35-item self-report questionnaire measures six dimensions of perfectionism: Personal Standards (7 items; e.g., ‘I set higher goals than most people’), Organization (6 items; e.g., ‘I am a neat person’), Concern over Mistakes (9 items; e.g., ‘I hate being less than the best at things’), Doubts about Actions (4 items; e.g., ‘I usually have doubts about the simple everyday things I do’), Parental Expectations (5 items; e.g., ‘My parents set very high standards for me’), and Parental Criticism (4 items; e.g., ‘My parents never tried to understand my mistakes’). Participants respond on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

#### 2.2.3 The Big Five Inventory (John & Srivastava, 1999).

This 44-item inventory assesses five personality domains of Extraversion, Agreeableness, Openness, Conscientiousness, and Neuroticism. This study considers only

Conscientiousness (9 items; e.g., I am someone who does a thorough job) and Neuroticism (8 items; e.g., I am someone who is depressed, blue). Participants respond on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

#### **2.2.4. Rosenberg Self-Esteem Scale (Rosenberg, 1965).**

This 10-item rating scale measures global self-esteem (e.g., ‘On the whole, I am satisfied with myself’). Items are rated a 4-point scale from 1 (*strongly agree*) to 4 (*strongly disagree*).

#### **2.2.5 Academic Performance Expectation**

Participants reported a mark out of 100 that they expected to receive as their final psychology course mark.

### **2.3 Procedure**

The test protocol was approved by the University of Sydney Human Research Ethics Committee. After the participants read the participant information sheet and signed the consent forms, the tests were administered on computers in a 30 minute session, proctored by the first author. To control for ordering effects, participants were randomly allocated to two conditions with counterbalanced orders of the questionnaires.

Table 1.  
*Intercorrelations, Descriptive Statistics, and Reliability (N = 208)*

		2	3	4	5	6	7	8	9	10	11	12	13	14	15	<i>M</i>	<i>SD</i>	
Background Variables																		
1	Age	(-)	-.09	-.06	.07	-.02	.04	.02	.00	.08	-.05	.14*	.17*	-.02	.01	.17*	19.61	4.07
2	Gender	(-)		.11	-.08	-.04	.01	.12	-.03	-.02	-.01	-.14*	-.06	-.23**	-.10	.15*	-	-
APS-R																		
3	High Standards			(.86)	.51**	.16*	.21**	.72**	-.04	-.11	-.05	.38**	.50**	-.01	.18**	.15*	39.18	6.06
4	Order				(.76)	.10	.15*	.41**	-.11	-.07	.08	.83**	.58**	-.10	.17*	.09	20.75	4.08
5	Discrepancy					(.92)	.56**	.21**	.19**	.40**	.63**	.04	-.23**	.46**	-.01	-.60**	48.36	13.57
FMPS																		
6	Concern over Mistakes					(.88)	.46**	.22**	.32**	.52**	.11	.02	.33**	.07	-.40**		22.27	6.59
7	Personal Standards						(.80)	.09	.02	.16*	.33**	.42**	.03	.19**	.08		23.74	4.57
8	Parental Expectations							(.81)	.62**	.10	-.14*	-.17*	.09	-.01	-.05		14.97	4.18
9	Parental Criticism								(.77)	.29**	-.15*	-.27**	.25**	-.09	-.30**		9.43	3.25
10	Doubts about Actions									(.70)	.06	-.26**	.41**	.02	-.49**		12.36	3.07
11	Organization										(.89)	.59**	-.00	.12	.16*		23.17	4.07
Personality																		
12	Conscientiousness											(.83)	-.24**	.17*	.39**		3.36	.66
13	Neuroticism													(.82)	-.59**		3.05	.74
Outcome Variables																		
14	Academic Performance Expectation <sup>a</sup>													(-)	-.07		72.87	8.64
15	Self-Esteem														(.86)		29.13	4.48

*Note.* Cronbach's coefficient alphas appear in parenthesis on the diagonal. APS-R = Almost Perfect Scale-Revised; FMPS = Frost Multidimensional Perfectionism Scale. \*  $p < .05$ ; \*\*  $p < .01$ . <sup>a</sup>  $n = 203$ .

### **3. Results**

#### **3.1 Reliability, Descriptive Statistics, and Intercorrelations**

Table 1 shows the reliability, descriptive statistics, and Pearson correlations for all variables. All variables had acceptable internal consistency. Females scored significantly higher on Organization and Neuroticism and significantly lower on self-esteem. Age was positively correlated with Organization, Conscientiousness, and self-esteem.

Correlations among the perfectionism subscales were mostly positive, ranging from -.15 (for Organization with Parental criticism) to .83 (for Organization and Order). Conscientiousness showed the strongest relationship to perfectionism subscales of Order and Organization, and Neuroticism showed the strongest relationship to perfectionism subscales of Discrepancy and Doubts about Actions. Three of the nine perfectionism subscales were significantly associated with academic performance expectations, and six were significantly associated with self-esteem.

#### **3.2 Model Comparison using Confirmatory Factor Analysis**

Structural models were tested using 18 item parcels, where each perfectionism subscale was divided into two item parcels with items randomly allocated to the parcels (parcel inter-correlations and descriptive statistics are given in the Appendix). Models were tested for two other parcel allocations. As results were similar, we report only the initial item-parcel allocation. The following models were tested in AMOS with a maximum likelihood estimator: (1) a two-factor model with Perfectionistic Strivings and Perfectionistic Concerns factors; (2) a three-factor model with Perfectionistic Strivings, Perfectionistic Concerns, and Parental Influences factors; (3) a three-factor model with Perfectionistic Strivings, Order, and Perfectionistic Concerns factors; and (4) a four-factor model with Perfectionistic Strivings, Order, Perfectionistic Concerns, and Parental Influences factors. To control for method

variance due to differences between the two scales, the error terms of the APS-R parcels were allowed to correlate.

The fit indices for Models 1 to 4 are summarized in Table 2. Compared to Model 1, Models 2 and 3 showed a significant reduction in Chi-square, and large increases in CFI, as shown in Table 2 (cf. Cheung & Rensvold, 2002). That is, including Parental Influences as a separate factor improved model fit, and including Order as a separate factor improved model fit, in line with hypotheses. Moreover, Model 4 was the only model that showed acceptable fit to the data, fitting significantly better than Model 2 ( $\Delta\chi^2 = 267.15$ ,  $\Delta df = 3$ ,  $p < .001$ ;  $\Delta CFI = .115$ ) and Model 3 ( $\Delta\chi^2 = 240.00$ ,  $\Delta df = 3$ ,  $p < .001$ ;  $\Delta CFI = .115$ ).

Standardized estimates for Model 4 are shown in Figure 1. Factor loadings ranged from .46 to .93. However, correlations were not uniformly positive. Order and Parental Influences showed a negative correlation ( $r = -.20$ ) and Parental Influences were unrelated to Perfectionistic Striving ( $r = -.01$ ). All other factor correlations were positive, ranging from .14 to .43. As factor inter-correlations were not uniformly positive, we did not test a hierarchical model of perfectionism.

Table 2.

*Summary of Fit Indices Evaluating Different Models of Perfectionism Using Maximum Likelihood Confirmatory Factor Analysis (N = 208)*

Competing Models	Fit Statistics							Comparison to two-factor model		
	$\chi^2$	df	$\chi^2/df$	TLI	CFI	RMSEA (90% CI)	AIC	$\Delta \chi^2$	$\Delta df$	$\Delta CFI$
1. Two-Factor Model	803.99	119	6.76	.615	.701	.167 (.156-.178)	907.99			
2. Three-Factor Model a (with Parental Influences)	567.50	117	4.85	.743	.803	.136 (.125-.148)	675.50	236.49**	2	.102
3. Three-Factor Model b (with Order)	540.55	117	4.62	.758	.815	.132 (.121-.144)	648.55	263.44**	2	.114
4. Four-Factor Model	300.55	114	2.64	.891	.918	.089 (.077-.101)	414.55	503.44**	5	.217

*Note.*  $\chi^2$  = Normal Theory Weighted Least Squares Chi-square; df = degrees of freedom; TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation; AIC = Akaike Information Criterion. \*\*  $p < .01$ .

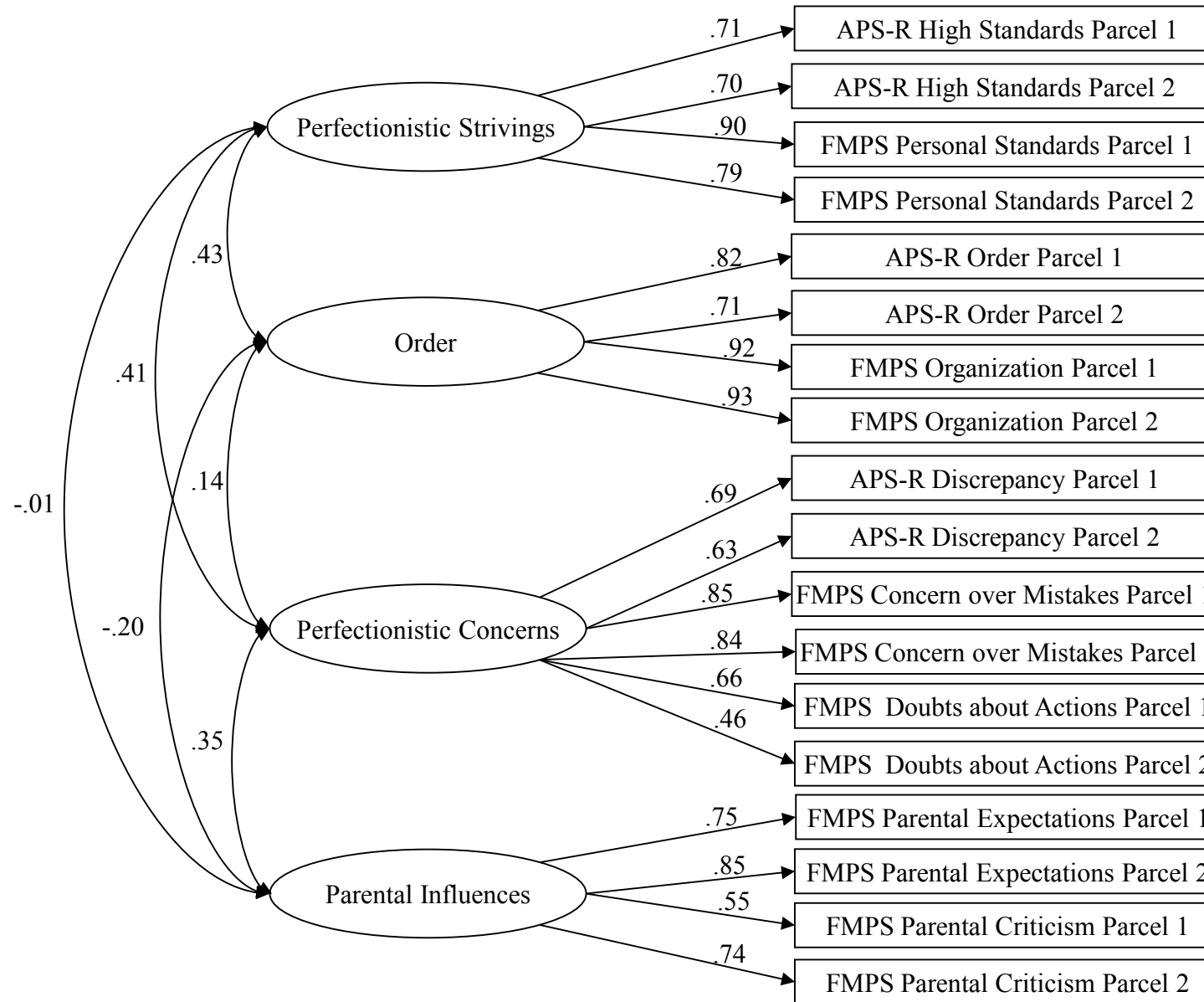


Figure 1. Four-Factor Model of Perfectionism. All path coefficients are statistically significant. APS-R = Almost Perfect Scale-Revised; FMPS = Frost Multidimensional Perfectionism Scale. Errors terms of the APS-R were allowed to correlate to model a method factor.

Table 3.

*Correlations between the Four Factors from Model 4 and Criterion Variables*

	Perfectionistic Strivings	Order	Perfectionistic Concerns	Parental Influences
Conscientiousness	.50**	.61**	-.16*	-.24**
Neuroticism <sup>b</sup>	.01	-.01	.47**	.17*
Academic Performance Expectation <sup>a</sup>	.43**	.19**	.08	-.03
Self-Esteem <sup>b</sup>	.13	.13	-.60**	-.17*

Note. \*  $p < .05$ ; \*\*  $p < .01$ .

<sup>a</sup>Correlations between Perfectionistic Striving and Order are significantly different (Fisher's  $z$  transformation,  $p < .05$ ); <sup>b</sup>Correlations between Perfectionistic Concerns and Parental Influences are significantly different (Fisher's  $z$  transformation,  $p < .05$ ).

Table 3 shows the criterion correlations for the four factors from Model 4.

Conscientiousness is most strongly related to Order, Neuroticism is most strongly related to Perfectionistic Concerns, performance expectations are most strongly related to Perfectionistic Strivings, and Self-esteem is most strongly related to Perfectionistic Concerns. In support of hypotheses, performance expectation shows a significantly stronger correlation with Perfectionistic Strivings than Order; Neuroticism shows a significantly stronger correlation with Perfectionistic Concerns than Parental Influences, and Self-esteem also shows a significantly stronger correlation with Perfectionistic Concerns than Parental Influences.



#### **4. Discussion**

This study contested the dominant two-factor model of perfectionism on theoretical and empirical grounds. The structural and correlational findings suggest that a four-factor model of perfectionism is preferable to the dominant two-factor model.

##### **4.1 Evidence for a Four-Factor Model**

Previous research has captured parental influences within a larger factor representing perfectionistic concerns and captured orderliness within a larger factor representing perfectionistic strivings (e.g., Suddarth & Slaney, 2001; Wigert et al., 2012). Our results, however, suggest that representing perfectionism with only two broad factors results in a loss of information, and that a four-factor structure is a better characterization. We propose that: (a) the orderliness/organization facet is distinct from other positive aspects of perfectionism, and (b) parental influences on perfectionism are distinct from other negative aspects of perfectionism. The necessity of these two bifurcations is evidenced by improvement in model fit, factor inter-correlations, and the correlation of perfectionism factors with the criterion variables. First, improvements in model fit were obtained both for dividing the positive elements of perfectionism into two factors (Order and Perfectionistic Strivings) and for dividing the negative elements of perfectionism into two factors (Parental Influences and Perfectionistic Concerns). Second, correlations among the four perfectionism factors demonstrate that Order and Perfectionistic Strivings have different degrees of associations with both Perfectionistic Concerns (Order has a weaker relationship), and Parental Influences (Perfectionistic Concerns is unrelated whereas Order has a negative relationship). These factor inter-correlations also support the difference between Perfectionistic Concerns and Parental Influences factors. Third, Order shows a significantly weaker relationship to academic performance expectations compared to Perfectionistic Strivings while Parental

Influences show a significantly weaker relationship with Neuroticism and Self-Esteem compared to Perfectionistic Concerns.

Comparing the relationship between self-esteem and the two negative perfectionism aspects provides insight into the nature of perfectionism—Perfectionistic Concerns was a stronger negative predictor of Self-Esteem than Parental Influences. There are two possible explanations for this. First, parental factors contribute to the development of a perfectionistic disposition (Burns, 1980; Pacht, 1984) and thus are a distal cause of self-esteem whereas perfectionistic concerns may be a proximal cause of self-esteem. Second, the two elements comprising the parental influences factor (parental criticism and parental expectations) may be qualitatively distinct from each other and hence affect self-esteem differently. That is, self-esteem may be more strongly affected by directly criticism or punishment for failing to meet parental goals (parental criticism) than by the mere existence of overly high parental goals (parental expectations). Indeed, previous studies report consistent negative relationships between parental criticism and self-esteem, but inconsistent associations for parental expectations (Rice, Ashby, & Preusser, 1996; Slaney et al., 2001).

Moreover, the zero and even negative association of Parental Influences with the other perfectionism factors raise questions regarding its inclusion in the perfectionism measurement model. That is, Parental Influences may be better conceptualized as a developmental pathway to perfectionism rather than being represented in the measurement model (Rice et al., 2005; Slaney et al., 2001). In fact, the different effects of Parental Influences on the other three facets of perfectionism provide additional evidence that these are three distinct entities. Parental influences are associated with lower levels of order, perhaps suggesting that over-controlling parents do not provide opportunities for the child to develop their own systems and habits of project management. Parental influences are unrelated to the perfectionistic striving (i.e., setting high goals), but positively predict the negative pole of perfectionism

(perfectionistic concerns). Thus, while the current study clearly suggests that Parental Influences are a separate factor from other maladaptive elements of perfectionism, results are consistent with Stoeber and Otto's (2006) contention that parental influences may be a causal influences rather than a component of perfectionism.

#### **4.2 Implications, Limitations and Future Directions**

The current study provides evidence challenging the dominant two-factor model defined by Perfectionistic Strivings and Perfectionistic Concerns (Stoeber & Otto, 2006). The results suggest that additional factors of order and parental influences need to be considered as separate factors. Currently, FMPS is the only instrument assessing all four of these factors, suggesting the need to revise the currently available perfectionism scales to capture the broad content coverage of perfectionism.

The current study was based on two widely-used perfectionism scales and was therefore limited to the theoretical underpinnings of these scales. Inclusion of a greater number and breadth of indicators from may allow parental criticism and parental expectations to be modeled as two separate factors

#### **4.3 Conclusions**

The current study addressed the fundamental question on the best conceptualization perfectionism. By comparing four possible models, the findings most closely support the four-factor model of perfectionism, consisting of Perfectionistic Strivings, Order, Perfectionistic Concerns and Parental Influences. Future studies should continue to clarify the complex nature of perfectionism and its relationships with other variables so as to bring us closer to understanding the true nature of the perfectionism construct.

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### Appendix: Parcel Inter-Correlations

		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	<i>M</i>	<i>SD</i>
1	APS-R High Standards Parcel 1	.74**	.65**	.61**	.40**	.47**	.28**	.39**	.22**	.10	.03	-.08	.19**	.23**	.00	-.11	-.10	-.13	22.56	3.56
2	APS-R High Standards Parcel 2		.66**	.56**	.40**	.47**	.31**	.39**	.17*	.06	.03	-.13	.13	.18*	.05	-.09	.01	-.12	16.62	2.92
3	FMPS Personal Standards Parcel 1			.71**	.35**	.36**	.30**	.35**	.18**	.09	.16*	.04	.35**	.42**	.12	-.03	.07	-.08	14.02	2.66
4	FMPS Personal Standards Parcel 2				.32**	.34**	.23**	.28**	.28**	.21**	.23**	.11	.38**	.45**	.14*	.06	.05	.04	9.71	2.28
5	APS-R Order Parcel 1					.62**	.77**	.76**	.09	-.01	.12	-.06	.11	.12	-.05	-.21**	.00	-.15*	10.41	2.39
6	APS-R Order Parcel 2						.65**	.69**	.16*	.10	.13	.08	.17*	.13	-.01	-.13	-.04	-.04	10.33	2.14
7	FMPS Organisation Parcel 1							.86**	.07	-.02	.10	.03	.11	.04	-.06	-.18**	-.06	-.16*	11.81	2.02
8	FMPS Organisation Parcel 2								.10	.00	.09	.00	.14	.10	-.06	-.23**	-.07	-.20**	11.37	2.20
9	APS-R Discrepancy Parcel 1									.83**	.58**	.44**	.54**	.50**	.14*	.20**	.23**	.40**	25.32	7.32
10	APS-R Discrepancy Parcel 2										.57**	.47**	.50**	.46**	.09	.25**	.27**	.41**	23.04	6.86
11	FMPS Doubts about Actions Parcel 1											.45**	.51**	.51**	.11	.16*	.20**	.28**	6.12	1.69
12	FMPS Doubts about Actions Parcel 2												.36**	.31**	-.02	.12	.12	.26**	6.25	1.91
13	FMPS Concern over Mistakes Parcel 1													.76**	.23**	.16*	.26**	.26**	9.79	3.29
14	FMPS Concern over Mistakes Parcel 2														.20**	.15*	.24**	.29**	12.48	3.75
15	FMPS Parental Expectations Parcel 1															.69**	.46**	.48**	8.97	2.59
16	FMPS Parental Expectations Parcel 2																.39**	.63**	.00	1.95
17	FMPS Parental Criticism Parcel 1																	.50**	4.66	1.73
18	FMPS Parental Criticism Parcel 2																		4.77	2.01

*Note.* APS-R = Almost Perfect Scale-Revised; FMPS = Frost Multidimensional Perfectionism Scale. \*  $p < .05$ ; \*\*  $p < .01$ .