

The Conceptualization and Assessment of the Perceived Consequences of Perfectionism

by

Jean M. Kim

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Advisor: Edward Chang, Ph.D.

### Abstract

Previous research on perfectionism has consistently implied a unidimensional view of perfectionism, with a relationship between perfectionism and maladjustment. However, more recent studies suggest a multidimensional view of perfectionism, with the possibility of an adaptive component. Yet, despite the popularity of perfectionism research, no study has assessed for differences in the perceptions of perfectionism as adaptive or maladaptive. Hence, in Study 1 we sought to develop the Consequences of Perfectionism Scale (COPS) in a sample of 492 college students. Results of an exploratory factor analysis indicated a two-factor solution for the COPS items. One factor involved perceptions of perfectionism's consequences as positive, and the other factor involved perceptions of perfectionism's consequences as negative. Moreover, these two subscales were found to be internally reliable. In Study 2, we sought to demonstrate the construct validity of the COPS using a sample of 118 college students. Results from this study indicated that the two subscales have different associations with core personality dimensions and positive and negative psychological outcomes. The present research therefore supports the value of this measure of perfectionism that examines the perceptions of perfectionism as both adaptive and maladaptive.

### The Conceptualization and Assessment of the Perceived Consequences of Perfectionism

Throughout the years, research on perfectionism has increased significantly, resulting in hundreds of publications (Blatt, 1995; Hewitt & Flett, 2002; Shafran & Mansell, 2001).

Historically, many of these researchers have predominantly used two models and measures of perfectionism. One model was developed by Frost, Marten, Lahart, and Rosenblate (1990), who define perfectionism as a multidimensional construct consisting of the following dimensions: concern over mistakes (e.g., “I should be upset if I make a mistake”), personal standards (e.g., “I have extremely high goals”), parental expectations (e.g., “My parents wanted me to be the best at everything”), parental criticism (e.g., “As a child, I was punished for doing things less than perfect”), doubts about actions (e.g., “I usually have doubts about the simple everyday things I do”), and organization (e.g., “I try to be a neat person”). These dimensions are measured by the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990).

The second model and measure of perfectionism was constructed by Hewitt and Flett (1991). They define perfectionism as a multidimensional construct composed of the following dimensions: self-oriented perfectionism (e.g., “I set very high standards for myself”), other-oriented perfectionism (e.g., “I have high expectations for the people who are important to me”), and socially prescribed perfectionism (e.g., “I find it difficult to meet others’ expectations of me”). These dimensions are measured by the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991).

Both the FMPS and MPS are based on a maladaptive theory of perfectionism (MTP; Shafran & Mansell, 2001), which asserts that greater perfectionism suggests greater pathology (Hamachek, 1978). In four studies of female college students attending a small, selective liberal arts college, Frost et al. (1990) showed that scores based on FMPS dimensions and total scores

on the FMPS were associated with various dysfunctional and pathological outcomes, including greater depressive symptoms, anxiety symptoms, and obsessive-compulsive behaviors. Frost et al. (1990) concluded that people high in perfectionism experience a higher frequency and wider variety of symptoms of psychopathology than people low in perfectionism. Similarly, Hewitt and Flett (1991) also showed in four studies that higher scores on MPS dimensions were associated with higher scores on dysfunctional personality measures (e.g., self-criticism, narcissism) and maladaptive outcomes (e.g., anger, guilt, shame). Additionally, clinical samples generally had higher MPS scores than non-clinical samples (i.e., college students; Hewitt & Flett, 1991).

Other researchers replicated these findings, showing that higher scores on perfectionism measures are generally associated with greater depressive symptoms and other symptoms of psychopathology (Chang & Sanna, 2001; Cheng, 2001; Cox, Enns, & Clara, 2002; Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Harris, Pepper, & Maack, 2008; Sherry, Hewitt, Flett, & Harvey, 2003). Researchers have also been able to demonstrate that scores on perfectionism measures are associated with greater eating disturbances (Bardone-Cone, 2007; Chang, Ivezaj, Downey, Kashima, & Morady, 2008; Downey & Chang, 2007; Forbush, Heatherton, & Keel, 2007; Minarik & Ahrens, 1996; Sherry, Hewitt, Besser, McGee, & Flett, 2004), maladaptive coping (Dunkley et al., 2000; Flett, Russo, & Hewitt, 1994; O'Connor & O'Connor, 2003), obsessive-compulsive symptoms (Yorulmaz, Karanci, & Tekok-Kilic, 2006), pain (Hadjistavropoulos, Dash, Hadjistavropoulos, & Sullivan, 2007), stress (Chang, Watkins, & Banks, 2004; Cheng, 2001; Dunkley & Blankstein, 2000; Dunkley et al., 2000), suicide risk (Adkins & Parker, 1996; Chang, 1998, 2002; Dean, Range, & Goggin, 1996; Hewitt, Flett, & Weber, 1994), test anxiety (Brown et al., 1999; Mills & Blankstein, 2000), lower GPA (Castro & Rice, 2003), and fatigue (Shafran & Mansell, 2001). Hence, across many studies, researchers

have found increasing evidence supporting MTP, maintaining the assertion that perfectionism, as measured by the FMPS and MPS, represents a maladaptive personality construct.

While significant findings on MTP have been found, some researchers have found evidence in opposition to MTP (Stoeber & Otto, 2006). In a study of 533 college students, Frost, Heimberg, Holt, Mattia, and Neubauer (1993) found that some scales of the FMPS and MPS could be reorganized into adaptive and maladaptive dimensions. In fact, they found scores on personal standards and organization from the FMPS and self-oriented perfectionism from the MPS to be associated with greater, not lesser, positive affect (Frost et al., 1990; Hewitt & Flett, 1991). However, this finding is complicated by the fact that some of these scales are positively, not negatively, correlated with each other (i.e., some subscales associated with positive affectivity are positively correlated with subscales associated with negative affectivity; Dunkley, Zuroff, & Blankstein, 2003; Frost et al., 1993).

Furthermore, other researchers who have used more inclusive measures of perfectionism (i.e., ones that assess for adaptive and maladaptive perfectionistic tendencies) have also produced findings that compete with the idea that perfectionism is unidimensionally maladaptive. Slaney, Rice, Mobley, Trippi, and Ashby (2001), for example, found that perfectionism, as measured by the Almost Perfect Scale-Revised (APS-R), is composed of adaptive (viz., high standards & order) and maladaptive (viz., discrepancy) dimensions. Other researchers using the APS-R to study college student populations have found high standards (e.g., “I expect the best from myself”) to be associated with greater academic integration (Rice, Leever, Christopher, & Porter, 2006), self-esteem (Mobley, Slaney, & Rice, 2005; Slaney et al., 2001), self-reported GPA (Slaney et al., 2001), and social connectedness (Rice, Leever, Christopher, & Porter, 2006). On the other hand, discrepancy (e.g., “I often worry about not measuring up to my own

expectations”) was found to be associated with greater anxious symptoms (Mobley et al., 2005; Rice & Ashby, 2007; Rice et al., 2006), depressive symptoms (Mobley et al., 2005; Rice & Ashby, 2007; Rice et al., 2006), and obsessive-compulsive symptoms (Rice & Pence, 2006).

Another more inclusive measure of perfectionism called the Performance Perfectionism Scale (PPS) was developed by Chang (2006). This measure is composed of dimensions that are adaptive (viz., positive self-oriented & socially prescribed performance perfectionism) and maladaptive (viz., negative self-oriented & socially prescribed performance perfectionism). Chang (2006) found that positive self-oriented performance perfectionism (e.g., “It is because of my very high standards that I have accomplished many things”) is associated with positive functioning such as life satisfaction, positive affect, and final course grade. In contrast, it was found that negative self-oriented performance perfectionism (e.g., “My high standards prevent me from doing my best”) was associated with negative functioning such as negative affect, somatization, depressive symptoms, worry, and perceived stress (Chang, 2006). Unfortunately, these findings, using APS-R and PPS, of perfectionism as an adaptive construct do not directly translate to those that used the FMPS and MPS. Therefore, some researchers argue that these more positive findings are due to the measures used and are not an indication that MTP is problematic.

Still, in addition to these measures, Slade and Owens’ (1998) presentation of a dual process model suggests that there are two types of perfectionism, namely Type 1 and Type 2. Type 1 is normal or healthy, carries positive benefits, and should be encouraged or fostered, while Type 2 is neurotic and causes a person to be dissatisfied (Slade & Owens, 1998). Across many researchers’ examinations of perfectionism, this dual process can be noted. For example, Hamacheck (1978) defined normal perfectionists as “those who derive a very real sense of

pleasure from the labors of a painstaking effort and who feel free to be less precise as the situation permits”, while neurotic perfectionists “never seem quite good enough, at least in their own eyes”. Slade and Dewey (1986) similarly describe perfectionists that are satisfied and dissatisfied. Finally, even the measures by Frost et al. (1990) and Hewitt and Flett (1991) present the possibility of a dual process model of perfectionism, with Personal Standards and Organization from the FMPS and Self-Oriented Perfectionism from the MPS being associated with more adaptive outcomes; and Parental Criticism, Parental Expectations, and Doubts About Actions from the FMPS and Socially Prescribed Perfectionism from the MPS being associated with more maladaptive outcomes. In fact, scores on Personal Standards and Organization from the FMPS and Self-Oriented Perfectionism from the MPS are associated with greater, not lesser, positive affect (Frost et al., 1990; Hewitt & Flett, 1991). Thus, it is possible that it is not perfectionism itself that leads to negative outcomes (Scott, 2007), but people’s perceptions of whether or not high standards are related to these outcomes. It may hold that perfectionism, if we look at people’s perceptions of the consequences, can be both adaptive and maladaptive.

Given these discussions about the possibility of perfectionism being adaptive and maladaptive, it is plausible that such differences are due to people's perceptions about the consequences of perfectionism being potentially adaptive and maladaptive, which then would suggest a multifunctional aspect to perfectionism. It has indeed been suggested in past research that one way to determine how people identify a construct is to look at its functional value (Carr, 1993). In other words, one should not simply examine the structure of a construct, but also look its purpose. A functional approach may be especially useful in identifying possible cultural and gender differences. For example, elevations in perfectionism may not necessarily indicate maladaptive processes in specific groups but instead different functional possibilities. Using a

functional approach, it is possible that these differences are due to people's perceptions about the consequences of perfectionism being potentially adaptive and/or maladaptive. In other words, it may not be whether or not individuals hold high standards or are concerned with making mistakes that make perfectionism useful or deleterious. Indeed, studies on worrying have shown that it may not be worrying per se, but rather a person's perceptions of negative, compared to positive, consequences of worrying that may involve negative outcomes (Davey, Tallis, & Capuzzo, 1996). Thus, it may be whether or not individuals perceive holding high standards as useful or deleterious for them that makes it so. Unfortunately, despite the popularity of perfectionism research, no measure currently exists that addresses perceptions of the consequences of perfectionism. Hence, we sought to develop such a measure.

### **Overall Goals of the Present Research**

Given these concerns regarding MTP and research suggesting that perfectionism is correlated with positive (e.g., self esteem) and negative outcomes (e.g., depressive symptoms), the purpose of the present research was to examine people's perceptions of the consequences of perfectionism. In Study 1, we sought to develop a reliable measure that assesses both the positive and negative consequences of perfectionism. In Study 2, we sought to determine the construct validity of the COPS measure by examining the relationship between the COPS and various personality dimensions and positive and negative psychological outcomes.

### **Study 1**

In developing a measure of the consequences of perfectionism, we sought to develop a concise and reliable measure. To do so, a list 180 items was generated in the laboratory that aimed to assess people's perceptions of the positive and negative consequences of perfectionism. By eliminating confusing, poorly worded, and redundant items, the list was narrowed down to 30

representative items. Factor analyses were then conducted of these 30 items. In general, we expected to find high internal reliability for the newly developed measure of the consequences of perfectionism.

## Method

**Participants.** Participants were 492 college students attending a large Midwestern university. Ages within the sample ranged from 18 to 44 years old, with a mean age of 20.14 ( $SD = 2.16$ ) years. The majority (78.7%) of the sample was European American. Females constituted 71% of the sample. All participants completed a survey online.

**Measures. *Consequences of Perfectionism Scale (COPS).*** The COPS (see Appendix A) was used to measure participants' perceptions of the consequences of perfectionism as adaptive and maladaptive. The COPS is a self-report measure that asks respondents to rate their responses on a 5-point Likert-type scale ranging from 1 (*extremely untrue of me*) to 5 (*extremely true of me*). The COPS measures perceptions of perfectionism's consequences as positive (e.g., "Being perfectionistic drives me to be motivated"), and it measures perceptions of perfectionism's consequences as negative (e.g., "Being perfectionistic hinders me from staying on track in my performance"). The COPS was based off of the Consequences of Worry Scale (COWS; Davey et al., 1996), which measures positive and negative worry beliefs, both of which appeared to be important in catastrophic thinking style, which is characteristic of pathological worry. This measure was revolutionary and important in the re-conceptualization of the function of worry. Borkovec and Roemer (1995) found both positive and negative worry beliefs in anxious and nonanxious participants. They believed that worry can facilitate general motivation, help to prevent negative events from occurring, and prepare people for negative consequences of possible life events. On the other hand, holding negative worry beliefs was thought to increase

worry by causing people to avoid or suppress worry, which can actually increase the frequency of worrying (Cartwright-Hatton & Wells, 1997).

The COWS is a 290-item self-report scale that assesses people's positive and negative perceptions of their worry. When factor analyzed, the questionnaire was comprised of two factors. The first factor consists of items measuring positive worry beliefs (e.g., "Worrying clarifies my thoughts and concentration"). The second factor consists of items measuring negative worry beliefs (e.g., "Worrying causes me stress"). The COWS was found to have good internal consistency and has been found to be correlated with other measures of anxiety and worry (Davey et al., 1996). Subscales were related to additional measures (e.g., Beck Anxiety Inventory) as expected by the theory supporting the convergent validity of the COWS. Specifically, negative worry beliefs, but not positive worry beliefs, predicted psychopathology (Covin, Dozois, & Westra, 2008).

The initial exploratory COPS is a 30-item self-report measure intended to be used to assess perceptions of the consequences of perfectionism as being adaptive or maladaptive. Items indicate various positive consequences (e.g., "Being perfectionistic gets me to increase my productivity") and negative consequences (e.g., "Being perfectionistic gets me to be less efficient").

**Procedure.** This study was conducted at a large Midwestern university. A random sample of university undergraduate students received an email notification via the Office of the Registrar. This email invited them to voluntarily participate in this study by completing an online version of the survey. Four hundred and ninety two participants completed this survey, and all test data was kept strictly confidential.

## **Results and Discussion**

Table 1 shows the results of an exploratory factor analysis of 30 potential items for the COPS. Items with factor loadings above .70 are shown in the table. Items with the highest factor loadings above .70 for both genders were kept for the final 10-item COPS measure (see Appendix A). As Table 1 shows, all items loaded highest onto one of two factors. The first factor involved items focused on the positive consequences of perfectionism (COPS-POS). Factor loadings ranged from .70-.81. The second factor involved items focused on the negative consequences of perfectionism (COPS-NEG). Factor loadings for the second factor ranged from .70-.76. The Eigenvalues for the COPS-POS and COPS-NEG were 4.70 and 4.40, respectively, accounting for 33.44% and 33.40% of the variance, respectively. As expected, results of the scree plot shown in Figure 1 further confirmed a clear two-factor structure for the items. Finally, as shown in Table 1, both COPS-POS and COPS-NEG were found to be reliable scales, with alphas of .91 and .86 for the COP-POS and COPS-NEG, respectively.

## **Study 2**

Study 1 provided promising preliminary support for the reliability of the new measure, the COPS, and the utility of such a measure that addresses different perceptions of the consequences of perfectionism. Study 2 was conducted to evaluate the construct validity of the COPS with established perfectionism measures (i.e., the Hewitt and Flett Multidimensional Perfectionism Scale), other personality dimensions (i.e., positive and negative affectivity), and broad positive and negative psychological outcomes (e.g., satisfaction with life, subjective happiness, depressive symptoms, anxious symptoms).

Consistent with emerging evidence that perfectionism is multidimensional, we expected that the two COPS subscales would be significantly and differentially related to established perfectionism subscales. We also expected the COPS-POS to be more significantly and

positively related to positive outcomes rather than negative outcomes, and we expected the COPS-NEG to be more significantly and positively related to negative outcomes.

## **Method**

**Participants.** Participants were 118 college students attending a large Midwestern university. Ages within the sample ranged from 18 to 44 years old, with a mean age of 20.28 ( $SD = 2.59$ ) years. The majority (82.2%) of the sample was European American. Females constituted 79.7% of the sample. Fifty-seven participants completed an online survey, and 61 participants complete a paper-pencil survey. No differences were found between the two groups on personality measures and outcomes, except negative affectivity.

**Measures. *Multidimensional Perfectionism Scale.*** The Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991) is a 45-item self-report measure that assesses perfectionism over three distinct scales. The Self-Oriented Perfectionism (MPS-Self) scale measures high achievement expectations and striving for perfectionism (e.g., “One of my goals is to be perfect in everything I do”). The Other-Oriented Perfectionism (MPS-Other) scale measures the expectations of perfectionism from others (e.g., “If I ask someone to do something, I expect it to be done flawlessly”). The Socially-Prescribed Perfectionism (MPS-Soc) scale measures concerns over meeting the expectations of others (e.g., “The better I do, the better I am expected to do”). Respondents are asked to rate their agreement or disagreement with statements based on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores on each of the three scales reflect greater levels of perfectionism. Researchers have found support for the validity of the MPS (Hewitt, Flett, Turnbull-Donovan, & Mikail, 1991), see Appendix B. The MPS was chosen over other global measures of perfectionism, such as the FMPS, because of its greater predictive ability in making and testing hypotheses.

***Positive and Negative Affect Schedule.*** The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) is a 20-item self-report measure used to assess positive and negative affectivity. Items indicate various feelings (e.g., “excited”, “upset”) and are rated on a five-point Likert-type scale, ranging from 1 (*very slightly or not at all*) to 5 (*extremely*), indicating the extent to which an individual feels that particular way. The scales are shown to be highly internally consistent, largely uncorrelated, and stable at appropriate levels over a two month time period (Watson, Clark, & Tellegen, 1988), see Appendix C.

***Subjective Happiness Scale.*** The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) is a 4-item scale, which measures cognitive appraisals of general life satisfaction. Respondents rate their general happiness based on a 7-point Likert-type scale that was different for each item. For example, one item asks respondents to rate their level of happiness compared to their peers based on a 7-point Likert-type scale ranging from 1 (*less happy*) to 7 (*more happy*). Higher SHS scores reflect a greater level of general happiness. Researchers have found support for the validity of the SHS (Mattei & Schaeffer, 2004), see Appendix D.

***Satisfaction With Life Scale.*** The Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item measure of global life satisfaction or a person’s satisfaction with life as a whole, rather than in any specific domain (e.g., “I am satisfied with my life”). Respondents are asked to rate their level of agreement or disagreement with the statements based on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores reflect greater levels of satisfaction with life. In support of its validity, SWLS scores have been found to be positively correlated to those obtained from other self-report measures of subjective well-being, as well as being correlated to scores obtained from external ratings of well-being (Pavot & Diener, 1993), see Appendix E.

***Beck Depression Inventory.*** The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a widely used 21-item self-report measure used to assess the severity of depressive symptoms. Using a 4-point Likert-type scale, respondents are asked to rate the extent to which they have experienced “in the past week, including today” specific depressive symptoms (e.g., “0 = I don’t get more tired than usual”, “1 = I get tired more easily than I used to”, “2 = I get tired from doing almost anything”, “3 = I am too tired to do anything”). Higher scores on the BDI indicate a higher level of depressive symptoms. Researchers have found support for the construct validity of the BDI (Beck, Steer, & Garbin, 1998), see Appendix F.

***Beck Anxiety Inventory.*** The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) is a 21-item self-report measure of various anxiety symptoms (e.g., “Heart pounding or racing”). Using a 4-point Likert-type scale, respondents are asked to rate the extent to which they have experienced these symptoms over the past week, using a scale ranging from 0 (*not at all*) to 3 (*severely*). Higher scores on the BAI indicate a higher level of anxious symptoms. Researchers have found support for the construct validity of the BAI (Beck et al., 1988), see Appendix G.

**Procedure.** This study was conducted at a large Midwestern university. A random sample of university undergraduate students received an email notification via the Office of the Registrar. This email invited them to voluntarily participate in the study by completing an online version of the survey. Fifty-seven participants completed this survey online. Data from paper-pencil surveys was also collected by soliciting volunteers in undergraduate psychology courses. The survey was described to be a study on college students’ perceptions of perfectionism. Sixty-

one participants completed this paper-pencil survey. Furthermore, all test data were kept strictly confidential.

## **Results and Discussion**

**Relations Between COPS and Perfectionism Measures.** Zero-order correlations were conducted to examine the COPS measure in relation to a pre-existing, commonly used measure of perfectionism. The results of these analyses between COPS scores and MPS scores are presented in Table 2. As this table shows, the COPS was correlated significantly and positively with two of the MPS subscales. The COPS-POS was significantly associated only with the Self-Oriented Perfectionism subscale (MPS-Self;  $r = .61, p < .01$ ). The COPS-NEG was negatively associated with MPS-Self ( $r = -.32, p < .01$ ) and positively associated with Socially Prescribed Perfectionism (MPS-Soc;  $r = .20, p < .05$ ). These results indicate that the COPS scores were more strongly and consistently correlated with Self-Oriented Perfectionism and Socially Prescribed Perfectionism, in the expected direction. Namely, Self-Oriented Perfectionism, which in past research was correlated more strongly with adaptive outcomes, was significantly and positively correlated with COPS-POS, while Socially Prescribed Perfectionism, typically correlated with maladaptive outcomes in past research, was correlated with COPS-NEG. Furthermore, Self-Oriented Perfectionism scores were negatively correlated with COPS-NEG.

**Relations Between COPS and Positive Psychological Outcomes.** Zero-order correlations were conducted to examine the association between the COPS and various measures of positive psychological outcomes. The results of these analyses are presented in Table 3. As this table shows, COPS-POS scores were correlated with two measures of positive psychological outcomes, positive affect (PA) and satisfaction with life (SWLS;  $r$ 's = .43 and .29, respectively,  $p < .01$ ). The COPS-NEG scores were correlated significantly and negatively with all measures

of positive psychological outcomes, namely PA, SWLS, and subjective happiness (SHS;  $r$ 's = -.38, -.30, -.41, respectively,  $p < .01$ ).

**Relations Between COPS and Negative Psychological Outcomes.** Zero-order correlations were conducted to examine the association between the COPS and various measures of negative psychological outcomes. The results of these analyses are presented in Table 4. As this table shows, COPS-NEG scores were positively correlated with all measures of negative psychological outcomes, negative affect (NA), depressive symptoms (BDI), and anxiety symptoms (BAI;  $r$ 's = .30, .47, and .23, respectively,  $p$ 's < .01, .01, and .05, respectively). COPS-POS scores were not correlated significantly with any measures of negative psychological outcomes.

Overall, the results of Study 2 show that COPS-POS and COPS-NEG function differently and have different associations in the expected directions with perfectionism scales, positive psychological outcomes, and negative psychological outcomes.

### General Discussion

The purpose of the present study was to develop a new scale of the perceptions of the consequences of perfectionism and to examine the dimensionality and functionality of perfectionism. The present research was initiated to address a limitation in the growing perfectionism literature; current research is lacking a measure that assesses for individual differences in perceptions of perfectionism's consequences as adaptive versus maladaptive. The findings of these two studies therefore have major implications with regard to the conceptualization and assessment of perfectionism.

In Study 1, we sought to develop a brief measure of the consequences of perfectionism and evaluate its reliability. In Study 2, we aimed to extend our results by examining the construct

validity of the COPS with various variables, such as perfectionism, positive psychological outcomes, and negative psychological outcomes.

Study 1 involved the development of a reliable measure that assesses for both the positive and negative consequences of perfectionism. The COPS was found to be tapping into two distinguishable dimensions, namely, perceptions associated with positive consequences and perceptions associated with negative consequences of perfectionism. This provides support for the emerging idea that perfectionism has a multidimensional structure (i.e., having both an adaptive and maladaptive component). Certainly, it supports Slade and Owens' (1998) dual process model, suggesting a Type 1 (normal & healthy, or in this case involving positive consequences) and Type 2 (neurotic, or in this case involving negative consequences) perfectionism. The COPS measure also seems to align with newer measures of multidimensional perfectionism, such as the Almost Perfect Scale-Revised (APS-R; Slaney et al., 2001) and the Performance Perfectionism Scale (PPS; Chang, 2006), which follow this dual process model and include adaptive and maladaptive perfectionism dimensions. Based on this study, it seems that perfectionism is not unidimensionally maladaptive. One might instead wish to examine people's perceptions of the negative consequences of perfectionism, which may be associated with negative outcomes, as opposed the idea that to simply holding high standards leads to negative outcomes. This research suggests that perfectionism has different functional possibilities based on people's view of the construct.

Furthermore, in Study 2, the COPS subscales were found to be associated with external criteria in the expected manner. As anticipated, the COPS was most strongly associated with the perfectionism measure, MPS. Additionally, COPS-POS was significantly and positively correlated with the Self-Oriented Perfectionism subscale of the MPS, which has been implicated

in research to be Type 1 or normal/healthy perfectionism (Slade & Owens, 1998). On the other hand, COPS-NEG was significantly and positively correlated with Socially Prescribed Perfectionism, which has been suggested to be Type 2 (neurotic) or maladaptive for people (Slade & Owens, 1998). The COPS-NEG was also significantly and negatively correlated with Self-Oriented Perfectionism. This provides further support for the multidimensionality and multifunctionality of perfectionism and the dual process model.

Generally speaking, the COPS-POS appears to have stronger overlap with positive psychological outcomes, while the COPS-NEG has stronger overlap with many negative psychological outcomes. For example, the COPS-POS was positively associated with positive affect and satisfaction with life, while the COPS-NEG was negatively associated with positive affect, satisfaction with life, and subjective happiness. The COPS-NEG was positively associated with negative affect, depressive symptoms, and anxiety symptoms. Thus, some preliminary support for the construct validity of this new measure was obtained.

Furthermore, the COPS scale was found to be reliable, with an alpha of .91. Compared to the MPS, the COPS alphas were high, with MPS' alphas at .90, .91, and .80 for MPS-Self, MPS-Soc, and MPS-Other, respectively.

### **Implications for Theory and Practice**

The present study was initiated to address the ongoing debate on the dimensionality of perfectionism. Past research and popular measures of perfectionism have asserted a unidimensional view of perfectionism, with a relationship between perfectionism and maladjustment. Both the FMPS and MPS, for example, support this view. However, the COPS was found to be multidimensional and consist of two factors, tapping into two distinguishable dimensions, namely, perceptions associated with positive consequences and perceptions

associated with negative consequences of perfectionism. This, along with newer, more inclusive measures of perfectionism such as the APS-R and PPS, provide support for the emerging idea of the structure of perfectionism as being multidimensional (i.e., having both an adaptive and maladaptive component).

Existing measures of perfectionism, including the FMPS, MPS, APS, and PPS, aim to define the construct and measure levels of perfectionism in subjects according to various dimensions, based on each model's conceptualization of the construct. Frost et al. (1990) asserted that the FMPS was created because of perfectionism's role in a wide variety of psychopathologies. Indeed, in the DSM-III, perfectionism was cited as a major diagnostic criteria for diagnosis. However, some of the items in these measures are contaminated. For example, the FMPS item "I should be upset if I make a mistake" already includes negative affect in the item itself. This affects the conceptualization of perfectionism and its associations with outcome variables, because it includes the outcome in the measure. Hence, the COPS is unique in that it does not seek to simply define perfectionism, but explicitly examines its various possible functions. This study did not restrict itself to assuming perfectionism's relationships with psychopathologies or negative outcomes, but also its adaptive possibilities. It examined people's perceptions of the consequences of perfectionism as both adaptive and maladaptive to see whether or not the consequences were differentially related to various positive and negative psychological outcomes, and indeed they were.

Among the same lines, this study sought to examine and clarify an often-overlooked aspect of perfectionism research, the functional meaning of perfectionism and different functional possibilities. In 1998, Slade and Owens suggested a dual process model, which proposes two types of perfectionism, Type 1 and Type 2. Type 1 is described to be normal or

healthy and to carry positive benefits; this type of perfectionism should be encouraged or fostered. On the other hand, Type 2 perfectionism is neurotic and causes a person to be dissatisfied. Although the two most popular measures of perfectionism support the maladaptive theory of perfectionism, which posits that greater perfectionism suggests greater pathology (Hamacheck, 1978), Frost et al. (1993) found that some subscales of the FMPS and MPS can be reorganized into adaptive and maladaptive dimensions, similar to Slade and Owens' dual process model. With Frost et al.'s (1990) measure, personal standards and organization resemble Type 1 perfectionism, while parental criticism, parental expectations, and doubts about actions resemble Type 2 perfectionism. Furthermore, with Hewitt and Flett's (1991) measure, self-oriented perfectionism resembles Type 1 perfectionism and socially prescribed perfectionism resembles Type 2 perfectionism. Similarly, the COPS can be organized into this Type 1 and Type 2 perfectionism, with COPS-POS resembling Type 1 perfectionism and COPS-NEG resembling Type 2 perfectionism.

Given this discussion about the possibility of perfectionism being adaptive and maladaptive, this study supports that such differences are due to people's perceptions about the function of perfectionism, whether they perceive the consequences of perfectionism to be potentially adaptive and maladaptive. It seems that it is not the perfectionism itself that leads to negative outcomes, but people's perceptions of perfectionism (Scott, 2007). Perhaps perfectionism is multifunctional, dependent on one's perceptions. Indeed, it has been suggested in past research that one way to determine how people identify a construct is to look at its functional value (Carr, 1993). In other words, it is not structure and topography that informs us the most, but the function and purpose of behaviors. For example, simply knowing that a person exhibits self-injury is not by itself very informative. What is interesting and informative is why

the self-injury occurs (Carr, 1993). Some self-injury is attention seeking or escape motivated; other self-injury is maintained by “tangibles, sensory reinforcers, or endogenous opiates” (Carr, 1993). Carr (1993) asserts that self-injury is not self-injury. Topography, therefore, does not matter very much, but the function or purpose does. Similarly, holding high standards may not matter very much, but the function or purpose of why people hold high standards (i.e., are perfectionistic) may matter much more. The COPS is important in that it looks at why people are engaging in perfectionistic tendencies.

A functional approach may also be especially useful in identifying possible cultural and gender differences. Unfortunately, the sample sizes of different racial/ethnic groups and sexes were not large enough to draw definitive conclusions. However, future research could examine whether or not certain groups perceive perfectionism to be particularly adaptive or maladaptive. This is important because elevations in perfectionism may not necessarily indicate maladaptive processes in specific groups but instead different functional possibilities (i.e., perfectionism may not be maladaptive for some because they perceive perfectionism’s consequences to be advantageous for them). Thus, it may be whether or not individuals perceive holding high standards as useful or deleterious for them that makes it so.

This is the first measure that measures people’s perceptions of the consequences of perfectionism. Using the COPS, one can now assess for people’s perceptions of the consequences of perfectionism, both adaptive and maladaptive, instead of assuming that perfectionism is functionally maladaptive for all. This has potential utility for clinical populations, in particular those who are high on perfectionism dimensions. The COPS can assist in identifying those that view perfectionism as maladaptive, so that therapists can work

preemptively with them on perfectionistic tendencies that are not adaptive for them and perhaps build on the adaptive consequences of perfectionism.

### **Limitations**

Despite these promising findings, a number of limitations are worth noting. First, the present study involved college students only. It would be useful to examine the validity and utility of the COPS in a clinical population or even adults in various professions. Perfectionism across ages also can potentially be functionally different, and future research should take a lifespan perspective. In particular, this sample may have perceived perfectionism to be particularly adaptive, given that the participants were all college students at a prestigious university. It would be interesting to sample a more normative population, and it has been suggested that a high school population may appear very different in terms of their perceptions of the consequences of perfectionism. Second, although the COPS was found to be internally reliable, it would be important to examine the temporal stability of the COPS across time. The present research is limited in that it can only infer correlational and not causal relationships. Future research may consider using a longitudinal model, which may provide valuable findings about the predictive relationships of the consequences of perfectionism – for instance, whether one's perceptions of the consequences of perfectionism are a predictor of anxiety, academic achievement, and/or satisfaction with life. Third, more research is needed to further examine the construct validity of the COPS by examining how it is related to other important measures, including other measures of dispositional perfectionism and outcomes. There are other multidimensional measures of global perfectionism, such as the Frost Multidimensional Perfectionism Scale (Frost et al. 1990), and unidimensional measures of global perfectionism, such as the Dysfunctional Attitudes Scale (Weissman & Beck, 1978), that can be added to future

studies. It certainly may be interesting to replicate the present research using a different measure of perfectionism. In addition, the present sample was predominantly European American. It would be useful to determine if racial/ethnic group differences exist in the form or function of perfectionism. As mentioned above, it would be important to examine these differences because certain groups may see the function of perfectionism to be particularly adaptive or maladaptive, and in those cases, their perfectionism should not be treated in the same manner. Additionally, the present sample was primarily female. It would be important to determine if any sex differences exist as well. Past research in perfectionism has implicated some sex differences. For example, Hewitt and Flett (1991) found that men scored higher than women on other-oriented perfectionism ( $t(154) = 2.57, p < .01$ ), and males classified as other-oriented perfectionists had significantly stronger correlations with disorders like obsessive compulsiveness, anxiety, and paranoia, compared to females. Sex differences in perfectionism broadly speaking suggest the possibility of sex differences in the perceptions of the consequences of perfectionism, and using the COPS, this could be further examined. Finally, the present research relied on self-report measures in order to assess for numerous psychological outcomes. Accordingly, it is impossible to ascertain whether the responses were unbiased, and future research should attempt to use more objective means to assess for psychological outcomes. Nonetheless, for researchers who are interested in studying how perceptions of perfectionism's consequences may prevent or promote adjustment, the COPS will represent an important tool in future studies.

### **Concluding Thoughts**

The present research was conducted to develop a useful way to measure the consequences of perfectionism. Previously, such a reliable measure did not exist. Results from the present research not only provided support for the multidimensionality and multifunctionality

of the COPS, but it also provided promising preliminary support for the construct validity of our measure compared to a global measure of perfectionism and various psychological outcomes.

Accordingly, we expect that the COPS will be a useful tool for researchers interested in the study of perfectionism and its consequences, as well as for practitioners interested in assessing for the adaptiveness of perfectionism in their clients.

## References

- Adkins, K. K., & Parker, W. (1996). Perfectionism and suicidal preoccupation. *Journal of Personality, 64*, 529-543.
- Bardone-Cone, A. M. (2007). Self-oriented and socially prescribed perfectionism dimensions and their associations with disordered eating. *Behaviour Research and Therapy, 45*, 1977-1986.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56*, 893-897.
- Beck, A.T., Rial, W.Y., & Ricketts, K. (1974). Short form of depression inventory: Cross-validation. *Psychological Reports, 34*, 1184-1186.
- Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the beck depression inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*, 77-100.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561-571.
- Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist, 50*, 1003-1020.
- Borkovec, T.D., & Roemer, L. (1995). Perceived functions of worry among generalized anxiety disorder subjects: Distraction from more emotionally distressing topics? *Journal of Behavior Therapy and Experimental Psychiatry, 26*, 25-30.

- Brown, E. J., Heimberg, R. G., Frost, R. O., Makris, G. S., Juster, H. R., & Leung, A. W. (1999). Relationship of perfectionism to affect, expectations, attributions and performance in the classroom. *Journal of Social and Clinical Psychology, 18*, 98-120.
- Carr, E. G. (1993). Behavior analysis is not ultimately about behavior. *The Behavior Analyst, 16*, 47-49.
- Cartwright-Hatton, S., & Wells, A. (1997). Beliefs about worry and intrusions: The Meta-Cognitions Questionnaire and its correlates. *Journal of Anxiety Disorders, 11*, 279-296.
- Castro, J. R., & Rice, K. G. (2003). Perfectionism and ethnicity: Implications for depressive symptoms and self-reported academic achievement. *Cultural Diversity and Ethnic Minority Psychology, 9*, 64-78.
- Chang, E. C. (1998). Cultural differences, perfectionism, and suicidal risk: Does social problem solving still matter? *Cognitive Therapy and Research, 22*, 237-254.
- Chang, E. C. (2002). Examining the link between perfectionism and psychological maladjustment: Social problem solving as a buffer. *Cognitive Therapy and Research, 26*, 581-595.
- Chang, E. C. (2000). Perfectionism as a predictor of positive and negative psychological outcomes: Examining a mediation model in younger and older adults. *Journal of Counseling Psychology, 47*, 18-26.
- Chang, E. C. (2006). Conceptualization and measurement of adaptive and maladaptive aspects of performance perfectionism: Relations to personality, psychological functioning, and academic achievement. *Cognitive Therapy and Research, 30*, 677-697.
- Chang, E. C., Hermann, N. B., Bodem, M. R., Sanna, L. J., Srivastava, K., Tsai, W., Kim, J. M., & Balino, A. M. (2008). *Everyday people's identification of perfectionists in society:*

*Who are the well-known perfectionists and are they all maladaptive?* Manuscript submitted for publication.

- Chang, E. C., Ivezaj, V., Downey, C. A., Kashima, Y., & Morady, A. R. (2008). Complexities of measuring perfectionism: Three popular perfectionism measures and their relations with eating disturbances and health behaviors in a female college student sample. *Eating Behaviors, 9*, 102-110.
- Chang, E. C., & Sanna, L. J. (2001). Negative attributional style as a moderator of the link between perfectionism and depressive symptoms: Preliminary evidence for an integrative model. *Journal of Counseling Psychology, 48*, 490-495.
- Chang, E. C., Watkins, A. F., & Banks, K. H. (2004). How adaptive and maladaptive perfectionism relate to positive and negative psychological functioning: Testing a stress-mediation model in Black and White female college students. *Journal of Counseling Psychology, 51*, 93-102.
- Chang, R., & Chang, E. C. (in press). Effects of socially prescribed expectations on emotions and cognitions in Asian and European Americans. *Cognitive Therapy and Research*.
- Cheng, S. K. (2001). Life stress, problem solving, perfectionism, and depressive symptoms in Chinese. *Cognitive Therapy and Research, 25*, 303-333.
- Clara, I. P., Cox, B. J., & Enns, M. W. (2007). Assessing self-critical perfectionism in clinical depression. *Journal of Personality Assessment, 88*, 309-316.
- Covin, R., Dozois, D. J. A., & Westra, H. A. (2008). An evaluation of the psychometric properties of the Consequences of Worry Scale (COWS). *Cognitive Therapy and Research, 32*, 133-142.

- Cox, B. J., Enns, M. W., & Clara, I. P. (2002). The multidimensional structure of perfectionism in clinically distressed and college student samples. *Psychological Assessment, 14*, 365-373.
- Davey, G. C. L., Startup, H. M., Macdonald, C. B., Jenkins, D., & Patterson, K. (2005). The use of “as many as can” versus “feel like continuing” stop rules during worrying. *Cognitive Therapy and Research, 29*, 155–169.
- Davey, G. C. L., Tallis, F., & Capuzzo, N. (1996). Beliefs about the consequences of worrying. *Cognitive Therapy and Research, 20*, 499–520.
- Dean, P. J., Range, L. M., & Goggin, W. C. (1996). The escape theory of suicide in college students: Testing a model that includes perfectionism. *Suicide and Life-Threatening Behavior, 26*, 181-186.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71-75.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology, 41*, 417-440.
- Downey, C. A., & Chang, E. C. (2007). Perfectionism and symptoms of eating disturbances in female college students: Considering the role of negative affect and body dissatisfaction. *Eating Behaviors, 8*, 497-503.
- Dozois, D.J.A., Westra, H.A., Collins, K.A., Fung, T.S., & Garry, J.K.F. (2004). Stages of change in anxiety: Psychometric properties of the University of Rhode Island Change Assessment (URICA) scale. *Behaviour Research and Therapy, 42*, 711–729.

- Dunkley, D. M., & Blankstein, K. R. (2000). Self-critical perfectionism, coping, hassles, and current distress: A structural equation modeling approach. *Cognitive Therapy and Research, 24*, 713-730.
- Dunkley, D. M., Blankstein, K. R., Halsall, J., Williams, M., & Winkworth, G. (2000). The relation between perfectionism and distress: Hassles, coping, and perceived social support as mediators and moderators. *Journal of Counseling Psychology, 47*, 437-453.
- Dunkley, D. M., Zuroff, D. C., & Blankstein, K. R. (2003). Self-critical perfectionism and daily affect: Dispositional and situational influences on stress and coping. *Journal of Personality and Social Psychology, 84*, 234-252.
- Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behavioral therapy for eating disorders: A 'transdiagnostic' theory and treatment. *Behaviour Research and Therapy, 41*, 509-528.
- Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 5-31). Washington, DC: American Psychological Association.
- Flett, G. L., Russo, F. A., & Hewitt, P. L. (1994). Dimensions of perfectionism and constructive thinking as a coping response. *Journal of Rational-Emotive & Cognitive Behavior Therapy, 12*, 163-179.
- Forbush, K., Heatherton, T. F., & Keel, P. K. (2007). Relationships between perfectionism and specific disordered eating behaviors. *International Journal of Eating Disorders, 40*, 37-41.

- Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences, 14*, 119-126.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*, 449-468.
- Gergen, K. J. (2001). Psychological science in a postmodern context. *American Psychologist, 56*, 803-813.
- Greenwald, A. G., Pratkanis, A. R., Leippe, M. R., & Baumgardner, M. H. (1986). Under what conditions does theory obstruct research progress? *Psychological Review, 93*, 216-229.
- Hadjistavropoulos, H., Dash, H., Hadjistavropoulos, T., & Sullivan, T.-L. (2007). Recurrent pain among university students: Contributions of self-efficacy and perfectionism to the pain experience. *Personality and Individual Differences, 42*, 1081-1091.
- Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology: A Journal of Human Behavior, 15*, 27-33.
- Harris, P. W., Pepper, C. M., & Maack, D. J. (2008). The relationship between maladaptive perfectionism and depressive symptoms: The mediating role of rumination. *Personality and Individual Differences, 44*, 150-160.
- Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology, 3*, 456-470.
- Hewitt, P. L., & Flett, G. L. (Eds.). (2002). *Perfectionism: Theory, research, and treatment*. Washington, DC: American Psychological Association.

- Hewitt, P. L., Flett, G. L., Turnbull-Donovan, W., & Mikail, S. F. (1991). The multidimensional perfectionism scale: Reliability, validity, and psychometric properties in psychiatric samples. *Psychological Assessment, 3*, 464-468.
- Hewitt, P. L., Flett, G. L., & Weber, C. (1994). Dimensions of perfectionism and suicide ideation. *Cognitive Therapy and Research, 18*, 439-460.
- Hughner, R. S., & Kleine, S. S. (2004). View of health in the lay sector: A compilation and review of how individuals think about health. *Health, 8*, 395-422.
- Khawaja, N. G., & Armstrong, K. A. (2005). Factor structure and psychometric properties of the Frost Multidimensional Perfectionism Scale: Developing shorter versions using an Australian sample. *Australian Journal of Psychology, 57*, 129-138
- Lakatos, I. (1970). Falsification and the methodology of scientific research programmes. In I. Lakatos & A. Musgrave (Eds.), *Criticism and the growth of knowledge* (pp. 91-196). London: Cambridge University Press.
- Lakatos, I. (1976). *Proofs and refutations*. Cambridge, England: Cambridge University Press.
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: preliminary reliability and construct validation. *Social Indicators Research, 46*, 137-155.
- Mattei, D., & Schaefer, C. E. (2004). An investigation of validity of the subjective happiness scale. *Psychological Reports, 94*, 288-290.
- Mills, J., & Blankstein, K. R. (2000). Perfectionism, intrinsic vs. extrinsic motivation, and motivated strategies for learning: A multidimensional analysis of university students. *Personality and Individual Differences, 29*, 1191-1204.

- Minarik, M. L., & Ahrens, A. H. (1996). Relations of eating and symptoms of depression and anxiety to the dimensions of perfectionism among undergraduate women. *Cognitive Therapy and Research, 20*, 155-169.
- Mobley, M., Slaney, R. B., & Rice, K. G. (2005). Cultural validity of the Almost Perfect Scale-Revised for African American college students. *Journal of Counseling Psychology, 52*, 628-639.
- Molden, D. C., & Dweck, C. S. (2006). Finding 'meaning' in psychology: A lay theories approach to self-regulation, social perception, and social development. *American Psychologist, 61*, 192-203.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2*, 175-220.
- O'Connor, R. C. & O'Connor D. B. (2003). Predicting hopelessness and psychological distress: The role of perfectionism and coping. *Journal of Counseling Psychology, 50*, 362-372.
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5*, 164-172.
- Popper, K. R. (1959). *The Logic of Scientific Discovery*. New York: Basic Books. (Original work published 1934).
- Rice, K. G., & Ashby, J. S. (2007). An efficient method for classifying perfectionists. *Journal of Counseling Psychology, 54*, 72-85.
- Rice, K. G., Blair, C. J., Castro, J. R., Cohen, B. N., & Hood, C. A. (2003). Meanings of perfectionism: A quantitative and qualitative analysis. *Journal of Cognitive Psychotherapy: An International Quarterly, 17*, 39-58.

- Rice, K. G., Leever, B. A., Christopher, J., & Porter, J. D. (2006). Perfectionism, stress, and social (dis)connection: A short-term study of hopelessness, depression, and academic adjustment among honors students. *Journal of Counseling Psychology, 53*, 524-534.
- Rice, K. G., & Pence, S. L., Jr. (2006). Perfectionism and obsessive-compulsive symptoms. *Journal of Psychopathology and Behavioral Assessment, 28*, 103-111.
- Riger, S. (1992). Epistemological debates, feminist voices: Science, social values, and the study of women. *American Psychologist, 47*, 730-740.
- Riley, C., Lee, M., Cooper, Z., Fairburn, C. G., & Shafran, R. (2007). A randomized controlled trial of cognitive-behaviour therapy for clinical perfectionism: A preliminary study. *Behaviour Research and Therapy, 45*, 2221-2231.
- Scarr, S. (1985). Constructing psychology: Making facts and fables for our times. *American Psychologist, 40*, 499-512.
- Scott, J. (2007). The effect of perfectionism and unconditional self-acceptance on depression. *Journal of Rational-Emotive & Cognitive Behavior Therapy, 25*, 36-64.
- Shafran, R., Cooper, Z., & Fairburn, C. G. (2002). Clinical perfectionism: A cognitive-behavioural analysis. *Behaviour Research and Therapy, 40*, 773-791.
- Shafran, R., & Mansell, W. (2001). Perfectionism and psychopathology: A review of research and treatment. *Clinical Psychology Review, 21*, 879-906.
- Sherry, S. B., Hewitt, P. L., Besser, A., McGee, B. J., & Flett, G. L. (2004). Self-oriented and socially prescribed perfectionism in the Eating Disorder Inventory Perfectionism subscale. *International Journal of Eating Disorders, 35*, 69-79.

- Sherry, S. B., Hewitt, P. L., Flett, G. L., & Harvey, M. (2003). Perfectionism dimensions, perfectionistic attitudes, dependent attitudes, and depression in psychiatric patients and university students. *Journal of Counseling Psychology, 50*, 373-386.
- Slade, P. D., & Dewey, M. E. (1986). Development and preliminary validation of SCANS: A screening test for identifying individuals at risk of developing anorexia and bulimia nervosa. *International Journal of Eating Disorders, 6*, 517-538.
- Slade, P. D., & Owens, R. G. (1998). A dual process model of perfectionism based on reinforcement theory. *Behavior Modification, 22*, 372-390.
- Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J., & Ashby, J. S. (2001). The revised almost perfect scale. *Measurement and Evaluation in Counseling and Development, 34*, 130-145.
- Sternberg, R. J. (1985). Implicit theories of intelligence, creativity, and wisdom. *Journal of Personality and Social Psychology, 49*, 607-627.
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, and challenges. *Personality and Social Psychology Review, 10*, 295-319.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.
- Weissman, A. N., & Beck, A. T. (1978). *Development and validation of the dysfunctional attitude scale: A preliminary investigation*. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Chicago, IL.

Yorulmaz, O., Karanci, A. N., & Tekok-Kilic, A. (2006). What are the roles of perfectionism and responsibility in checking and cleaning compulsions? *Journal of Anxiety Disorders, 20*, 312-327.

## Author Note

Jean M. Kim, Department of Psychology, University of Michigan, Ann Arbor.

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Table 1

*Exploratory Factor Analysis of the Consequences of Perfectionism Scale (COPS) Items (N = 492)*

ITEMS	FACTOR	
	Positive Consequences	Negative Consequences
Being perfectionistic drives me to be motivated.	.77	
Being perfectionistic gets me to stay on track.	.73	
Being perfectionistic encourages me to be successful.	.81	
Being perfectionistic get me to be on top of things.	.75	
Being perfectionistic pushes me to achieve more.	.80	
Being perfectionistic pushes me to pursue my goals.	.81	
Being perfectionistic pushes me to be more efficient.	.70	
-----		
Being perfectionistic hinders me from staying on track in my performance.		-.74
Being perfectionistic hinders me from pursuing my goals.		-.72
Being perfectionistic gets me to decrease my productivity.		-.70
Being perfectionistic discourages me from being successful.		-.71
Being perfectionistic gets me to less on top of things.		-.76
Being perfectionistic gets me to concentrate worse.		-.70
Being perfectionistic gets me to be unmotivated.		-.73
Self-Values (Eigenvalues)	4.70	4.40
Variance Explained (%)	33.44	31.40
$\alpha$	.91	.86

Table 2

*Zero-order Correlations between COPS (COPS-POS and COPS-NEG) and Perfectionism (MPS) (N = 118)*

	COPS-POS	COPS-NEG	MPS-Self	MPS-Other	MPS-Soc
COPS-POS	-				
COPS-NEG	-.54**	-			
MPS-Self	.61**	-.32**	-		
MPS-Other	.16	-.12	.35**	-	
MPS-Soc	.08	.20*	-.40*	.11	-

*Note:* COPS-POS (Consequences of Perfectionism-Positive Scale); COPS-NEG (Consequences of Perfectionism-Negative Scale); MPS-Self (Multidimensional Perfectionism Scale-Self-Oriented Perfectionism Scale); MPS-Other (Multidimensional Perfectionism Scale-Other-Oriented Perfectionism Scale); MPS-Soc (Multidimensional Perfectionism Scale-Socially-Prescribed Perfectionism Scale).

\*\* $p < .01$ , \* $p < .05$ .

Table 3

*Zero-order Correlations between COPS (COPS-POS & COPS-NEG) and Positive Psychological Outcomes (PA, SHS, & SWLS) (N=118)*

	COPS-POS	COPS-NEG	PA	SHS	SWLS
COPS-POS	-				
COPS-NEG	-.54**	-			
PA	.43**	-.41**	-		
SHS	.17	-.30**	.50**	-	
SWLS	.29**	-.38**	.38**	.65**	-

*Note:* COPS-POS (Consequences of Perfectionism-Positive Scale); COPS-NEG (Consequences of Perfectionism-Negative Scale); PA (Positive Affect Scale of Positive Affect Negative Affect Schedule); SHS (Subjective Happiness Scale); SWLS (Satisfaction With Life Scale).

\*\* $p < .01$ , \* $p < .05$ .

Table 4

*Zero-order Correlations between COPS (COPS-POS & COPS-NEG) and Negative Psychological Outcomes (NA, BDI, & BAI) (N = 118)*

	COPS-POS	COPS-NEG	NA	BDI	BAI
COPS-POS	-				
COPS-NEG	-.54**	-			
NA	-.03	.30**	-		
BDI	-.15	.47**	.62**	-	
BAI	-.08	.23*	.59**	.64**	-

*Note:* COPS-POS (Consequences of Perfectionism-Positive Scale); COPS-NEG (Consequences of Perfectionism-Negative Scale); NA (Negative Affect Scale of Positive Affect Negative Affect Schedule); BDI (Beck Depression Inventory); BAI (Beck Anxiety Inventory).

\*\* $p < .01$ , \* $p < .05$ .

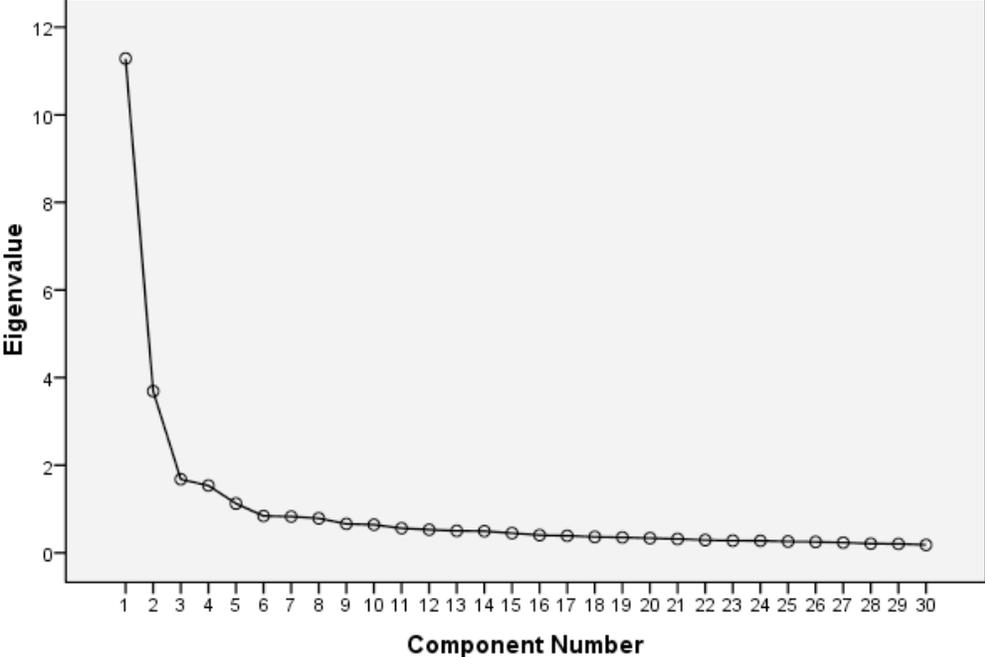


Figure 1. Scree plot for the analysis shown in Table 1, showing the two-factor structure of the 30 potential COPS items.

## Appendix A

*Consequences of Perfectionism Scale (COPS)*

Instructions: Listed below are a number of statements with which you may agree or disagree. Using the 1-5 scale below, please indicate your level of agreement or disagreement with each statement by circling the appropriate number.

- 1 = Extremely *Untrue* of Me  
 2 = Somewhat *Untrue* of Me  
 3 = Neither True nor *Untrue* of Me  
 4 = Somewhat True of Me  
 5 = Extremely *True* of Me

Untrue					True		
1	2	3	4	5	1.	Being perfectionistic gets me to stay on track in my performance.	
1	2	3	4	5	2.	Being perfectionistic gets me to concentrate worse.	
1	2	3	4	5	3.	Being perfectionistic hinders me from staying on track in my performance.	
1	2	3	4	5	4.	Being perfectionistic drives me to be motivated.	
1	2	3	4	5	5.	Being perfectionistic gets me to be less on top of things.	
1	2	3	4	5	6.	Being perfectionistic pushes me to achieve more.	
1	2	3	4	5	7.	Being perfectionistic gets me to be on top of things.	
1	2	3	4	5	8.	Being perfectionistic pushes me to pursue my goals.	
1	2	3	4	5	9.	Being perfectionistic gets me to decrease my productivity.	
1	2	3	4	5	10.	Being perfectionistic encourages me to be successful.	

## Appendix B

*Multidimensional Perfectionism Scale (MPS)*

Instructions: Listed below are a number of statements concerning personal characteristics or traits. Read each item and decide whether you agree or disagree and to what extent. If you strongly agree, circle 7; if you strongly disagree, circle 1; if you feel somewhere in between, circle any one of the numbers between 1 and 7. If you feel neutral or undecided the midpoint is 4.

- |               |                                                                                             |
|---------------|---------------------------------------------------------------------------------------------|
| 1 2 3 4 5 6 7 | 1. When I am working on something, I cannot relax until it is perfect.                      |
| 1 2 3 4 5 6 7 | 2. I am not likely to criticize someone for giving up too easily.                           |
| 1 2 3 4 5 6 7 | 3. It is not important that the people I am close to are successful.                        |
| 1 2 3 4 5 6 7 | 4. I seldom criticize my friends for accepting second best.                                 |
| 1 2 3 4 5 6 7 | 5. I find it difficult to meet others' expectations of me.                                  |
| 1 2 3 4 5 6 7 | 6. One of my goals is to be perfect in everything I do.                                     |
| 1 2 3 4 5 6 7 | 7. Everything that others do must be of top-notch quality.                                  |
| 1 2 3 4 5 6 7 | 8. I never aim for perfection in my work.                                                   |
| 1 2 3 4 5 6 7 | 9. Those around me readily accept that I can make mistakes too.                             |
| 1 2 3 4 5 6 7 | 10. It doesn't matter when someone close to me does not do their absolute best.             |
| 1 2 3 4 5 6 7 | 11. The better I do, the better I am expected to do.                                        |
| 1 2 3 4 5 6 7 | 12. I seldom feel the need to be perfect.                                                   |
| 1 2 3 4 5 6 7 | 13. Anything I do that is less than excellent will be seen as poor work by those around me. |
| 1 2 3 4 5 6 7 | 14. I strive to be as perfect as I can be.                                                  |
| 1 2 3 4 5 6 7 | 15. It is very important that I am perfect in everything I attempt.                         |
| 1 2 3 4 5 6 7 | 16. I have high expectations for the people who are important to me.                        |
| 1 2 3 4 5 6 7 | 17. I strive to be the best at everything I do.                                             |
| 1 2 3 4 5 6 7 | 18. The people around me expect me to succeed at everything I do.                           |
| 1 2 3 4 5 6 7 | 19. I do not have very high standards for those around me.                                  |
| 1 2 3 4 5 6 7 | 20. I demand nothing less than perfection of myself.                                        |
| 1 2 3 4 5 6 7 | 21. Others will like me even if I don't excel at everything.                                |
| 1 2 3 4 5 6 7 | 22. I can't be bothered with people who won't strive to better themselves.                  |
| 1 2 3 4 5 6 7 | 23. It makes me uneasy to see an error in my work.                                          |
| 1 2 3 4 5 6 7 | 24. I do not expect a lot from my friends.                                                  |
| 1 2 3 4 5 6 7 | 25. Success means that I must work even harder to please others.                            |
| 1 2 3 4 5 6 7 | 26. If I ask someone to do something, I expect it to be done flawlessly.                    |
| 1 2 3 4 5 6 7 | 27. I cannot stand to see people close to me make mistakes.                                 |
| 1 2 3 4 5 6 7 | 28. I am perfectionistic in setting my goals.                                               |
| 1 2 3 4 5 6 7 | 29. The people who matter to me should never let me down.                                   |
| 1 2 3 4 5 6 7 | 30. Others think I am okay, even when I do not succeed.                                     |
| 1 2 3 4 5 6 7 | 31. I feel that people are too demanding of me.                                             |
| 1 2 3 4 5 6 7 | 32. I must work to my full potential at all times.                                          |
| 1 2 3 4 5 6 7 | 33. Although they may not show it, other people get very upset with me when I slip up.      |
| 1 2 3 4 5 6 7 | 34. I do not have to be the best at whatever I am doing.                                    |
| 1 2 3 4 5 6 7 | 35. My family expects me to be perfect.                                                     |
| 1 2 3 4 5 6 7 | 36. I do not have very high goals for myself.                                               |
| 1 2 3 4 5 6 7 | 37. My parents rarely expected me to excel in all aspects of my life.                       |
| 1 2 3 4 5 6 7 | 38. I respect people who are average.                                                       |
| 1 2 3 4 5 6 7 | 39. People expect nothing less than perfection from me.                                     |
| 1 2 3 4 5 6 7 | 40. I set very high standards for myself.                                                   |
| 1 2 3 4 5 6 7 | 41. People expect more from me than I am capable of giving.                                 |
| 1 2 3 4 5 6 7 | 42. I must always be successful at school or work.                                          |
| 1 2 3 4 5 6 7 | 43. It does not matter to me when a close friend does not try their hardest.                |
| 1 2 3 4 5 6 7 | 44. People around me think I am still competent even if I make a mistake.                   |
| 1 2 3 4 5 6 7 | 45. I seldom expect others to excel at whatever they do.                                    |

## Appendix C

*Positive and Negative Affect Schedule (PANAS)*

Instructions: Listed below are a number of words that describe different feelings or emotions. Reach each item and then indicate to what extent you generally feel this way, this is, how you feel on average, by writing a number in the blank next to each feeling. Use the scale below.

<b>1</b> <i>very slightly or not at all</i>	<b>2</b> <i>a little</i>	<b>3</b> <i>moderately</i>	<b>4</b> <i>quite a bit</i>	<b>5</b> <i>extremely</i>
___ interested	___ excited	___ strong	___ scared	
___ enthusiastic	___ distressed	___ upset	___ guilty	
___ hostile	___ proud	___ irritable	___ ashamed	
___ nervous	___ attentive	___ active	___ alert	
___ inspired	___ determined	___ jittery	___ afraid	

## Appendix D

*Subjective Happiness Scale (SHS)*

Instructions: For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:  
**(not a very happy person)** 1      2      3      4      5      6      7      **(a very happy person)**
  
2. Compared to most of my peers, I consider myself:  
**(less happy)** 1      2      3      4      5      6      7      **(more happy)**
  
3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?  
**(not at all)** 1      2      3      4      5      6      7      **(a great deal)**
  
4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?  
**(not at all)** 1      2      3      4      5      6      7      **(a great deal)**

## Appendix E

*Satisfaction With Life Scale (SWLS)*

Instructions: Below are some statements with which you may agree or disagree. Using the 1 - 7 scale below indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

1 = Strong Disagree ..... 4 = Neutral ..... 7 = Strongly Agree

- \_\_\_\_\_ 1. In most ways my life is close to my ideal.
- \_\_\_\_\_ 2. The conditions of my life are excellent.
- \_\_\_\_\_ 3. I am satisfied with my life.
- \_\_\_\_\_ 4. So far I have gotten the important things I want from life.
- \_\_\_\_\_ 5. If I could live my life over, I would change almost nothing.

**Appendix F and Appendix G, which reproduced the *Beck Depression Inventory* (BDI) and the *Beck Anxiety Inventory* (BAI), have been removed at the request of the copyright holder.**