The Role of Perfectionism in Daily Self-Esteem, Attachment, and Negative Affect

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ABSTRACT This study of university students (64 men, 99 women) examined the role of self-critical (SC) and personal standards (PS) higher order dimensions of perfectionism in daily self-esteem, attachment, and negative affect. Participants completed questionnaires at the end of the day for 7 consecutive days. Trait and situational influences were found in the daily reports of self-esteem, attachment, and affect. In contrast to PS perfectionism, SC perfectionism was strongly related to aggregated daily reports of low self-esteem, attachment fears (fear of closeness, fear of dependency, fear of loss), and negative affect as well as instability indexes of daily self-esteem, attachment, and negative affect. Multilevel modeling indicated that both SC and PS perfectionists were emotionally reactive to decreases in self-esteem, whereas only SC perfectionists were emotionally reactive to increases in fear of closeness with others. These results demonstrate the dispositional and moderating influences of perfectionism dimensions on daily self-esteem, attachment, and negative affect.

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Over the past two decades, perfectionism has become viewed as a multidimensional cognitive-personality construct that has been demonstrated to play an important role in various psychological problems, such as depression and anxiety (see Bardone-Cone et al., 2007; Egan, Wade, & Shafran, 2011; Shafran & Mansell, 2001). Although the perfectionism construct has been conceptualized and defined in many different ways (see Flett & Hewitt, 2002), an important advance in the perfectionism field has been the identification of two higher-order dimensions of perfectionism that underlie many different perfectionism constructs and measures (see Dunkley, Blankstein, Masheb, & Grilo, 2006; Stoeber & Otto, 2006). We refer to these two higher-order dimensions as *personal standards (PS) perfectionism* and *self-critical (SC) perfectionism*, respectively (Dunkley, Zuroff, & Blankstein, 2003). PS perfectionism involves the setting of high standards and goals for oneself. On the other hand, SC perfectionism involves constant and harsh self-scrutiny, overly critical evaluations of one's own behavior, and chronic concerns about others' criticism and disapproval (Dunkley et al., 2003). Numerous authors have argued that the problems associated with perfectionism are more closely associated with self-critical evaluative tendencies than high personal standards (see Dunkley, Blankstein, et al., 2006; Stoeber & Otto, 2006). In contrast to measures that represent PS perfectionism, SC perfectionism measures have been consistently related to higher negative affect (e.g., Dunkley, Zuroff, & Blankstein, 2006; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Mongrain & Zuroff, 1995).

The main goal of the present study was to better understand the distinction between PS and SC dimensions of perfectionism by examining the different ways in which these dimensions are manifested in daily self-esteem, attachment, and negative affect (cf. Bolger, Davis, & Rafaeli, 2003). In considering the primarily maladaptive nature of the SC dimension of perfectionism, self-critical evaluative concerns have long been theorized to develop in environments of disapproval, inconsistent approval, and/or conditional approval where approval is conditional upon certain high standards being met (e.g., Blatt, 1995; Hamachek, 1978; Horney, 1950; Missildine, 1963). Such environments foster doubt and uncertainty that any effort is ever good enough, and a sense of self-worth that is contingent on performance (e.g., Blatt & Homann, 1992; Moore & Barrow, 1986; Rogers, 1951).

Past clinical accounts suggest that low self-esteem arises specifically from SC perfectionism (see Hamachek, 1978; Horney, 1950). The chronic and harsh self-evaluation of individuals with higher SC perfectionism perpetuates a gap between the ideal and actual self that results in these individuals having a more global negative view of the self (e.g., Blankstein, Dunkley, & Wilson, 2008; Dunkley & Grilo, 2007; Rice, Ashby, & Slaney, 1998). In addition, according to the sociometer model of self-esteem (e.g., Leary, Tambor, Terdal, & Downs, 1995), self-esteem is a subjective indicator of the degree to which the individual is being included and excluded by others. SC perfectionism is nonspecifically associated with a mixture of insecure attachment fears concerning inclusion (e.g., gaining approval) and exclusion (e.g., avoiding rejection) by others, which, according to the sociometer theory, would also contribute to lower self-esteem in these individuals.

Although two fundamental dimensions of attachment (anxiety and avoidance) have been identified (e.g., Brennan, Clark, & Shaver, 1998), Collins and Read (1990) found support for three central dimensions. In keeping with Zuroff and Fitzpatrick (1995), we referred to these three attachment dimensions as *fear of closeness* (and intimacy with others), *fear of dependency* (on others to be available when needed), and *fear of loss* (of love or relationships). Individuals with higher SC perfectionism are especially threatened by emotionally intimate relationships and fear closeness with others in that they fear that disclosing their thoughts, wishes, and feelings will lead to disapproval and rejection (see Cantazaro & Wei, 2010; Zuroff & Fitzpatrick, 1995). Although the interpersonal style entailed in SC perfectionism involves the avoidance of intimacy, SC perfectionism is also assumed to be related to fear of loss of relationships because these individuals tend to live in anxious apprehension about obtaining others' approval, respect, and admiration (see Blatt, 1995; Cantazaro & Wei, 2010; Wei, Mallinckrodt, Russell, & Abraham, 2004; Zuroff & Fitzpatrick, 1995). Further, individuals with higher SC perfectionism are assumed to fear dependency on others not only because they want to avoid negative reactions from others, but also because they wish to appear perfect and self-reliant to others in order to gain respect and admiration (see Blatt, 1995; Hewitt, Flett, Sherry, et al., 2003; Wei et al., 2004).

Factor analytic studies of the Frost Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990), the

Hewitt and Flett (1991) Multidimensional Perfectionism Scale (HMPS), and the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976) have supported PS and SC higher-order factors of perfectionism of which specific FMPS, HMPS, and DEQ measures are lower-order manifestations (e.g., Clara, Cox, & Enns, 2007; Dunkley et al., 2003; Powers, Zuroff, & Topciu, 2004). In contrast to measures that represent PS perfectionism, SC perfectionism measures have been consistently related to lower self-esteem (e.g., Blankstein et al., 2008; Dunkley & Grilo, 2007; Rice et al., 1998; Stoeber & Childs, 2010) and insecure attachment dimensions, including fear of closeness, fear of dependency, fear of loss, attachment anxiety, and attachment avoidance (e.g., Cantazaro & Wei, 2010; Rice, Lopez, & Vergara, 2005; Wei et al., 2004; Zuroff & Fitzpatrick, 1995).

The above discussion relating SC perfectionism to low self-esteem and attachment fears is consistent with the predominant view that self-esteem and attachment are highly stable, trait-like constructs. More recently, however, instability in self-esteem and attachment has become recognized. Instability in self-esteem refers to the magnitude of short-term fluctuations, reflecting fragile and vulnerable feelings of self-worth in the context of everyday events (see Greenier et al., 1999; Kernis, 2005). Similarly, it has been demonstrated that there is within-person variability in attachment whereby attachment levels and styles differ according to the type of relationship and the context of the interpersonal interaction (see Fraley, 2007; Mikulincer & Shaver, 2007). Although both dispositional and situational factors play a role in self-esteem and attachment, little is known about predictors of variability in everyday self-esteem and attachment dimensions. The present study used a daily diary methodology to obtain multiple assessments of self-esteem and attachment dimensions for each individual, allowing us to assess the extent to which variability in daily self-esteem and attachment reflects between-persons (dispositional) and within-person (situational) influences. We then examined the links between perfectionism dimensions and daily self-esteem, attachment, and affect in three different ways.

First, we examined the extent to which SC and PS perfectionism are related to dispositional influences in daily self-esteem and insecure attachment dimensions. Previous studies examining self-esteem and attachment in relation to perfectionism dimensions have conceptualized these measures as stable, trait-like characteristics

and assessed them using retrospective, one-occasion, dispositional self-report measures that required participants to summarize their self-esteem and attachment over time. Researchers have argued, however, that aggregating situational reports can be a more ecologically valid method for assessing characteristics than are retrospective questionnaires that are more susceptible to memory biases and distortions (e.g., Bolger et al., 2003; Epstein, 1979). The present study incorporated a major methodological improvement over previous studies in that a daily diary methodology was used to obtain daily measures of self-esteem and attachment dimensions. We then aggregated each person's responses across days, thereby empirically deriving trait-like measures of self-esteem and attachment dimensions. This enabled us to examine whether SC and PS perfectionism dimensions are differentially related to whatever individual differences exist in aggregated daily assessments of self-esteem and attachment fears and, further, whether the relations are comparable to those reported using retrospective trait measures.

Second, we examined the relation between SC and PS perfectionism and instability in daily self-esteem and attachment. The role of perfectionism dimensions in daily self-esteem and attachment instability has yet to be examined. SC perfectionism might be related to self-esteem instability because SC perfectionists tend to have contingent self-worth in that their self-esteem is dependent on activity, accomplishment, and/or performance (DiBartolo, Yen Li, & Frost, 2008; McArdle, 2009; Sturman, Flett, Hewitt, & Rudolph, 2009). SC perfectionism might also be related to attachment instability because SC perfectionism stems from an environment of disapproval or conditional approval, where positive approval from parents is only granted when performance meets expectations (e.g., Blatt, 1995; Hamachek, 1978). Thus, it could be expected that individuals who score high on SC perfectionism are vulnerable to daily fluctuations in self-esteem and attachment fears depending on whether or not performance expectations are met and disapproval/approval is perceived on a day-to-day basis.

Third, we examined whether fluctuations in daily self-esteem and attachment fears are associated with variations in daily negative affect, and whether SC and PS dimensions of perfectionism moderate these relations. Self-esteem has been related to lower negative affect (e.g., Pelham & Swann, 1989), whereas insecure attachment dimensions have been related to higher negative affect (e.g., Davila,

Bradbury, & Fincham, 1998; see Mikulincer & Shaver, 2007, for a review). Further, a large body of research has examined what has been termed the congruency hypothesis: both SC perfectionists and PS perfectionists, who are preoccupied with self-definition, self-worth, and self-control, are theorized to be specifically vulnerable to achievement-related events that highlight personal failure (see Blatt & Zuroff, 1992; Dunkley et al., 2003; Hewitt & Flett, 1993). By extension, both SC perfectionists and PS perfectionists might have heightened sensitivity to decreases in self-esteem because such individuals are theorized to be "profoundly vulnerable . . . to their own self-scrutiny and judgment" and "feel vulnerable to any possible implication of failure" (Blatt, 1995, p. 1005). Relatedly, SC perfectionists—reminiscent of "rejection sensitive" individuals (e.g., Romero-Canyas, Downey, Berenson, Ayduk, & Kang, 2010)—might be especially threatened by heightened attachment fears of closeness with others because these individuals fear that disclosing their thoughts, wishes, and feelings will lead to disapproval and rejection (see DiBartolo et al., 2008; Hewitt, Flett, Sherry, et al., 2003; Zuroff & Fitzpatrick, 1995). On the other hand, because SC perfectionists are not as preoccupied with issues of relatedness such as desires to be loved, cared for, nurtured, and protected (see Blatt, 1995), we expect that these individuals would not have heightened emotional reactivity to increases in fear of dependency on others or fear of loss of love.

Few studies have examined whether perfectionism dimensions interact with self-esteem and attachment dimensions to predict distress. Rice at al. (1998) found that, at higher levels of SC perfectionism, individuals with lower self-esteem had greater depressive symptoms than individuals higher on self-esteem. Wei et al. (2004) found that a combination of high-SC perfectionism and high-attachment anxiety is especially likely to be associated with depressive mood. These previous studies used between-persons designs and analyses, which address whether SC perfectionism in conjunction with individual differences in self-esteem/attachment predict individual differences in distress. However, between-persons analyses address different questions than within-person analyses, which assess the conceptually important question of whether fluctuations in daily affect covary with fluctuations in self-esteem and attachment (see Tennen, Affleck, Armeli, & Carney, 2000). We examined whether SC perfectionists and/or PS perfectionists, relative to those scoring low

on the respective dimension, might experience more negative affect on days when they experience decreases in self-esteem and increases in fear of closeness. These questions were examined using multilevel modeling using both between-persons (e.g., SC perfectionism) and within-person (e.g., self-esteem, attachment) predictors.

In summary, the main goal of the present study was to gain a better understanding of the relations between perfectionism and both self-esteem and attachment, which have been described by several theorists. To our knowledge, the present study was the first to examine perfectionism dimensions in daily self-esteem and attachment addressing three different questions: (1) How do SC and PS dimensions of perfectionism differentially relate to trait-like (i.e., aggregated daily) self-esteem and attachment dimensions? (2) How do SC and PS perfectionism relate to daily instability in self-esteem and attachment? (3) Do SC and PS perfectionism moderate emotional reactivity to lower levels of self-esteem and increases in fears of closeness?

METHOD

Participants

The present study presents additional analyses of the data from the same sample of university students used by Dunkley, Zuroff, et al. (2003, 2006). Participants were full-time students at McGill University recruited using student newspaper advertisements and classroom announcements. Participants were compensated $25 for their participation in the study. One hundred seventy-nine students agreed to participate and completed initial measures. Of the initial sample, 16 participants were excluded due to failure to complete all 7 days of diary entries. The final sample included 163 participants (64 men and 99 women). Their mean age was 20.02 years ($SD = 2.28$). The majority of participants were of European descent (68%, $n = 111$), with 17% Asian ($n = 28$), 8% East Indian ($n = 13$), 3% South American ($n = 5$), 3% African ($n = 4$), and 1% Caribbean ($n = 2$).

Procedure

As described in Dunkley et al. (2003), participants provided demographic information and completed a package of questionnaires, including measures of perfectionism, in a one-hour lab session. During the lab visit, participants were instructed to complete one diary at bedtime, starting

that night, for the next seven consecutive nights. The diary consisted of a package of questionnaires, including measures of daily affect, hassles, event appraisals, coping, social support, self-esteem, and attachment. The present study utilized the daily measure of affect along with the measures of self-esteem and attachment that were not analyzed previously. Participants were given seven stamped envelopes, each containing a diary inside and the diary day written on the address label, and were asked to fill out the diary inside the envelope at bedtime and mail the envelope the next morning. Participants were encouraged to complete their diaries every evening, but they also were advised to complete them as soon as possible the next morning if they failed to complete their diary the previous night.

Measures

Perfectionism. The measures of SC perfectionism and PS perfectionism were obtained from the DEQ (Blatt et al., 1976), the FMPS (Frost et al., 1990), and the HMPS (Hewitt & Flett, 1991). Consistent with previous factor analytic findings that supported a two-factor model of perfectionism over a one-factor model (e.g., Clara et al., 2007; Dunkley et al., 2003; Powers et al., 2004), SC perfectionism was assessed by DEQ self-criticism (e.g., "There is a considerable difference between how I am now and how I would like to be"), FMPS concern over mistakes (9 items; e.g., "People will think less of me if I make a mistake"), FMPS doubts about actions (4 items; e.g., "It takes me a long time to do something right"), and HMPS socially prescribed perfectionism (15 items; e.g., "People expect nothing less than perfection from me"). PS perfectionism was measured by FMPS personal standards (7 items; e.g., "If I do not set the highest standards for myself, I am likely to end up a second-rate person") and HMPS self-oriented perfectionism (15 items; e.g., "I set very high standards for myself").

The reliability and validity of the DEQ (Blatt, 2004; Zuroff, Mongrain, & Santor, 2004), HMPS (Hewitt & Flett, 1991), and FMPS (Frost et al., 1990) have been well established. Coefficient alphas in the present study for concern over mistakes, doubts about actions, socially prescribed perfectionism, personal standards, and self-oriented perfectionism were .90, .72, .84, .78, and .90, respectively. The coefficient alpha was not computed for DEQ self-criticism because, as recommended by Zuroff, Quinlan, and Blatt (1990), this score was derived using the factor weights derived from the initial female sample (Blatt et al., 1976), which has been shown to be a more valid scoring procedure than other scoring procedures that sum a series of items (see Zuroff et al., 2004). The DEQ, FMPS, and HMPS measures were standardized and then added together to create the SC perfectionism score (DEQ self-criticism + FMPS concern over mistakes + FMPS doubts about actions + HMPS socially prescribed

perfectionism) and PS perfectionism score (FMPS personal standards + HMPS self-oriented perfectionism), as in Dunkley et al. (2003). Coefficient alphas for the SC perfectionism and PS perfectionism composite scores were .83 and .76, respectively. Support for the validity of these higher-order dimensions has been obtained (e.g., Clara et al., 2007; Dunkley et al., 2003).

Daily self-esteem. Daily self-esteem was assessed by the 10-item Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1979). This scale consists of 10 statements (e.g., "On the whole, I am satisfied with myself"), with higher scores indicating higher self-esteem. Consistent with Kernis, Cornell, Sun, Berry, and Harlow (1993), participants completed an adapted version of the RSES in which anchor points were separated by 10 dots from *strongly disagree* to *strongly agree*. Participants circled the dot that best reflected the extent to which they agreed with each statement at the moment they completed the questionnaire. The internal consistency and validity for the RSES have been well established (Rosenberg, 1979). Between-persons reliabilities (coefficient alphas) were computed for each of the 7 days for the present study, and the average reliability over 7 days was .92. Within-person reliabilities were computed using Cranford and colleagues' (2006) procedure to assess the reliability of change, and the within-person reliability over 7 days was .82. The self-esteem instability index was the standard deviation of each participant's repeated assessment scores. The self-esteem instability index represents the actual degree of short-term fluctuation in self-esteem over time (e.g., Kernis et al., 1993).

Daily adult attachment. Daily adult attachment dimensions were assessed by the 30-item Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994a). The RSQ includes the three subscales from the Collins and Read (1990) Adult Attachment Scale, which assess fear of closeness (6 items; e.g., "I am somewhat uncomfortable being close to others"), fear of dependency (6 items; e.g., "I find it difficult to allow myself to depend on others"), and fear of loss (6 items; e.g., "I often worry that my partner does not really love me"). Consistent with Kernis and colleagues' (1993) adaptation for the RSES, participants completed an adapted version of the RSQ in which anchor points were separated by 10 dots from *strongly disagree* to *strongly agree*. Participants circled the dot that best reflected how much they agreed with each statement that described their feelings about close relationships at the moment that they completed the questionnaire. The internal consistency and validity of the three subscales has been demonstrated (e.g., Collins & Read, 1990; Griffin & Bartholomew, 1994b). Between-persons reliabilities (coefficient alphas) were computed for each of the 7 days for the present study, and the

average reliability over 7 days was .81 for fear of closeness, .87 for fear of dependency, and .81 for fear of loss. Within-person reliabilities were computed using Cranford and colleagues' (2006) procedure to assess the reliability of change, and moderate within-person reliabilities over 7 days were found for fear of closeness (.49), fear of dependency (.63), and fear of loss (.53). Instability indexes for fear of closeness, fear of dependency, and fear of loss were represented by the standard deviations of each participant's repeated assessment scores.

Daily affect. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) is a 20-item scale that was used to measure daily negative affect. The negative affect scale consists of 10 adjectives, and the daily ratings have been found to be reliable and valid (e.g., Dunkley et al., 2003; Watson et al., 1988). Between-persons reliabilities (coefficient alphas) were computed for each of the 7 days for the present study, and the average reliability over 7 days was .83. Within-person reliabilities were computed using Cranford and colleagues' (2006) procedure to assess the reliability of change, and the within-person reliability over 7 days was .80. The instability index for negative affect was represented by the standard deviation of each participant's repeated assessment scores.

RESULTS

Previous studies (Dunkley, Zuroff, et al., 2003, 2006) of the present sample examined dispositional and moderating influences of perfectionism dimensions on daily stress (i.e., hassles, appraisals of the most bothersome event or issue), coping, and affect. The present analyses are reported in three sections. First, we report the between- and within-person variability in the daily measures of self-esteem and attachment fears in order to assess the extent of dispositional versus situational influences. Second, we examine the correlations between SC and PS dimensions of perfectionism and both aggregated daily and instability indexes of self-esteem and attachment fears to assess the extent to which SC and PS dimensions of perfectionism are related to trait and situational influences in daily self-esteem and attachment. Finally, in a series of multilevel analyses, we examine within-person relations between self-esteem and attachment dimensions and end-of-day negative affect. Further, we test whether affective reactivity to fluctuations in self-esteem and attachment fears varies as a function of SC and PS perfectionism.

Nested Analysis of Variance

For this multilevel design, in which daily assessments were nested within individuals, a nested analysis of variance (N-ANOVA; Winer, 1972) was used to assess the extent to which the variance in daily self-esteem and attachment was due to between-persons and within-person influences. Following Schwartz, Neale, Marco, Shiffman, and Stone's (1999) rule of thumb, a strong trait or individual differences influence would be reflected in approximately 50% of the variability in self-esteem and attachment being due to between-persons influences; a strong situational influence would be reflected in approximately 10% of the variability being due to between-persons influences; and modest to moderate trait influences would be reflected in an amount of variance due to between-persons influences between these two extremes. Maximum likelihood (ML) estimation, which allows for autocorrelated within-person residuals, was used to provide a more accurate estimate of the between-persons and within-person variability (see Schwartz & Stone, 1998). Specifically, the Mixed Models procedure in SPSS Version 17.0 was used to perform the N-ANOVAs, which allowed specification of a first-order, autoregressive structured covariance matrix (see Schwartz et al., 1999).

The 163 participants provided a total of 1,141 daily reports of self-esteem, attachment, and affect. The percentages of the variability in the self-esteem, attachment, and affect variables attributable to between- and within-person influences showed that there were large individual differences or trait influences in self-esteem (69.4% between-persons vs. 30.6% within-person), fear of closeness (79.7% between-persons vs. 20.3% within-person), fear of dependency (75.8% between-persons vs. 24.2% within-person), and fear of loss (80.8% between-persons vs. 19.2% within-person). As reported in Dunkley et al. (2003), moderate trait influences were demonstrated for negative affect (28.8% between-persons vs. 71.2% within-person).

Correlations

Table 1 presents the means, standard deviations, and intercorrelations of the measures of SC perfectionism, PS perfectionism, and aggregated and instability indexes of daily self-esteem, attachment fears, and affect. Zero-order correlations were computed to assess how SC perfectionism and PS perfectionism related to the

Table 1
Intercorrelations, Means, and Standard Deviations of the Measures of Self-Critical and Personal Standards Dimensions of Perfectionism, and Aggregated and Instability Indexes of Daily Self-Esteem, Attachment, and Negative Affect

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. SC perfectionism	—											
2. PS perfectionism	.47***[a]	—										
3. Self-esteem agg.	−.66***	−.16*	—									
4. Self-esteem inst.	.25***	.06	−.44***	—								
5. Fear of closeness agg.	.55***	.30***	−.42***	.28***	—							
6. Fear of closeness inst.	.21**	.12	−.14	.40***	.30***	—						
7. Fear of dependency agg.	.54***	.36***	−.42***	.30***	.70***	.35***	—					
8. Fear of dependency inst.	.05	.05	−.04	.41***	−.02	.35***	.10	—				
9. Fear of loss agg.	.43***	.16*	−.38***	.21**	.18*	.17*	.30***	.12	—			
10. Fear of loss inst.	.17*	.10	−.24**	.40***	.26***	.42***	.26***	.32***	.23**	—		
11. Negative affect agg.	.40***[a]	.14[a]	−.39***	.31***	.27***	.14	.28***	.23**	.41***	.18*	—	
12. Negative affect inst.	.34***	.27***	−.28***	.37***	.28***	.33***	.32**	.25**	.26***	.29***	.60***	—
M	0.00	0.00	74.91	7.93	24.38	4.07	29.71	5.21	24.37	4.34	18.96	4.99
SD	1.00	1.00	16.79	5.87	10.27	2.25	11.80	2.80	11.55	2.58	4.63	2.56

Note. SC = self-critical; PS = personal standards; Agg. = aggregated; Inst. = instability.
[a]This finding was reported previously by Dunkley et al. (2003) using latent variables.
*$p < .05$. **$p < .01$. ***$p < .001$.

aggregated daily measures and instability indexes of self-esteem, attachment, and affect. Dunkley et al. (2003) previously reported the relations between latent variables of SC perfectionism and PS perfectionism ($r = .61$), SC perfectionism and negative affect ($r = .52$), and PS perfectionism and negative affect ($r = .22$), which are somewhat higher in magnitude (differences in *r*s ranging from .08 to .14) than the respective relations among these three measured variables reported in Table 1, likely because latent variables control for measurement error. As shown in Table 1, SC perfectionism was moderately to strongly related to aggregated daily lower self-esteem, fear of closeness, fear of dependency, fear of loss, and negative affect. On the other hand, PS perfectionism exhibited weak to moderate relations with aggregated daily lower self-esteem, fear of closeness, fear of dependency, and fear of loss. SC perfectionism was also weakly associated with instability in self-esteem, fear of closeness, fear of loss, and negative affect, whereas PS perfectionism was weakly related to instability in negative affect.[1]

In order to further differentiate the two perfectionism dimensions (see Hill, Huelsman, & Araujo, 2010; Stoeber & Otto, 2006), partial correlations were computed to assess how SC perfectionism and PS perfectionism related to aggregated daily and instability indexes of daily self-esteem, attachment, and negative affect, partialing out the shared variance between SC perfectionism and PS perfectionism. As SC perfectionism and PS perfectionism share a focus on self-worth, self-definition, and self-control, the SC perfectionism residual is assumed to reflect self-doubt and deprecation and fear of negative evaluation that is undifferentiated with regard to high personal

1. In light of previous research revealing that self-esteem level and self-esteem instability interactively predict various outcomes (e.g., Kernis, 2005; see Okada, 2010, for a review), we considered whether particular combinations of aggregated daily self-esteem and instability in self-esteem might be related to perfectionism dimensions. Two hierarchical regression analyses tested whether aggregated self-esteem interacted with self-esteem instability to predict SC and PS perfectionism. The aggregated Self-Esteem × Self-Esteem Instability interaction term did not significantly predict PS perfectionism, but it did significantly predict SC perfectionism ($p < .05$). However, this significant effect reflected a suppressor effect, and the nature of the effect was not predicted and was not interpretable. We also considered whether perfectionism dimensions interacted with instability in self-esteem to predict aggregated daily negative affect. Two hierarchical multiple regression analyses tested SC/PS Perfectionism × Self-Esteem Instability interaction terms as predictors of negative affect, but neither interaction was significant.

standards, whereas the PS perfectionism residual is assumed to reflect a relatively more adaptive achievement motivation that does not involve ongoing negative self-appraisal (see Alden, Ryder, & Mellings, 2002). Results indicated that SC perfectionism was still strongly related to aggregated daily self-esteem ($pr = -.67$, $p < .001$), fear of closeness ($pr = .49$, $p < .001$), fear of dependency ($pr = .45$, $p < .001$), fear of loss ($pr = .40$, $p < .001$), and negative affect ($pr = .38$, $p < .001$), controlling for PS perfectionism. On the other hand, PS perfectionism became positively related to aggregated daily self-esteem ($pr = .23$, $p < .01$) but was no longer significantly related to aggregated daily fear of closeness ($pr = .05$, *ns*), fear of dependency ($pr = .15$, *ns*), fear of loss ($pr = -.05$, *ns*), and negative affect ($pr = -.06$, *ns*) once overlap with SC perfectionism was partialed out. Furthermore, partial correlations demonstrated that SC perfectionism was still related to instability in self-esteem ($pr = .25$, $p < .001$), fear of closeness ($pr = .17$, $p < .05$), and negative affect ($pr = .25$, $p < .001$) after controlling for shared variance with PS perfectionism. In contrast, PS perfectionism was no longer significantly related to instability in negative affect ($pr = .13$, *ns*) once SC perfectionism was partialed out.

In addition, given that SC perfectionism was strongly correlated with aggregated daily self-esteem (see Table 1), we computed partial correlations to examine the unique relations between SC perfectionism and the other self-esteem, attachment, and negative affect variables, controlling for the overlap with aggregated self-esteem. SC perfectionism was no longer significantly related to instability in self-esteem ($pr = -.06$, *ns*) and fear of loss ($pr = .02$, *ns*), but SC perfectionism remained significantly related to aggregated daily fear of closeness ($pr = .40$, $p < .001$), fear of dependency ($pr = .39$, $p < .001$), fear of loss ($pr = .25$, $p < .01$), and negative affect ($pr = .20$, $p < .05$); and instability in fear of closeness ($pr = .16$, $p < .05$) and negative affect ($pr = .22$, $p < .01$), controlling for aggregated daily self-esteem.

Affective Reactivity: SC Perfectionism as a Moderator of the Within-Person Relations Among Daily Affect and Self-Esteem and Attachment

The next analyses focused on the influence of SC and PS dimensions of perfectionism on affective reactivity to fluctuations in self-esteem

and attachment. In analyzing reactivity, we examined the relations between daily negative affect and self-esteem and attachment.[2] For this set of analyses, multilevel modeling was conducted with the Mixed Models procedure in SPSS Version 17.0. Therefore, there was a two-level structure in the data: the repeated daily assessment (within-person) level and the person (between-persons) level. ML estimation was used to model the data at both levels.

In a series of multilevel analyses, we predicted affective reactivity to daily fluctuations in self-esteem and attachment. Between-persons variation was removed from the Level 1 daily predictor variables by mean-centering them within person. Furthermore, the within-person regression parameters were separately modeled as a function of SC perfectionism and PS perfectionism, Level 2, between-persons variables. That is, we examined whether the slopes representing the relations between a daily variable (self-esteem, attachment) and affect were different for individuals high versus low on SC perfectionism and/or for individuals high versus low on PS perfectionism. At Level 1 (day), we included a random effect of the intercept to account for participant differences in mean daily negative affect. We also tested the random slope of each daily predictor to assess whether participants differed in their reactivity to the daily predictor, and kept the random slope in the model if the model converged and the random effect was significant. Otherwise, we deleted the random slope in the interest of using more parsimonious models. In sum, end-of-day negative affect was predicted in separate equations by self-esteem, fear of closeness, fear of dependency, and fear of loss, respectively. Further, reactivity to these factors was examined as a function of SC perfectionism and PS perfectionism in separate models using cross-level interactions between Level 2 SC perfectionism or PS perfectionism and the Level 1 daily predictor variables. Consistent with the procedure of Hewitt, Flett, and colleagues (e.g., Hewitt & Flett, 1993), to evaluate moderator hypotheses, each cross-level interaction term was tested separately by itself as an additional predictor.

2. We also conducted a series of multilevel regressions predicting positive affect as the outcome. Although self-esteem and attachment dimensions predicted end-of-day positive affect, there were no moderating effects of perfectionism dimensions on these relationships.

Table 2
Multilevel Regressions: Self-Esteem Predicting Negative Affect and the Moderating Effects of Self-Critical Perfectionism and Personal Standards Perfectionism

Parameter	Unstandardized Estimate	*SE*
A. Self-Critical Perfectionism × Self-Esteem Model		
Level 2		
Intercept	18.989***	.335
Self-critical perfectionism	1.824***	.336
Level 1		
Self-esteem	−.172***	.023
Cross-level interaction		
Self-Critical Perfectionism × Self-Esteem	−.048*	.023
B. Personal Standards Perfectionism × Self-Esteem Model		
Level 2		
Intercept	18.991***	.362
Personal standards perfectionism	.592	.363
Level 1		
Self-esteem	−.192***	.017
Cross-level interaction		
Personal Standards Perfectionism × Self-Esteem	−.053**	.018

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

As SC perfectionism and PS perfectionism were standardized, the between-persons (Level 2) parameters indicated how much average mood levels changed as a function of differences of one standard deviation in SC perfectionism and PS perfectionism. As was previously reported in Dunkley et al. (2003), in contrast to individuals with higher PS perfectionism, individuals with higher SC perfectionism reported higher overall negative affect (see Tables 2 and 3).

Self-Esteem predicting negative affect: Moderating effects of SC and PS perfectionism. We examined how mood reactivity in response to within-person fluctuations in self-esteem might vary as a function of SC and PS dimensions of perfectionism. In these multilevel models, we used self-esteem as a Level 1 predictor of negative affect. As shown in Table 2, individuals, on average, were reactive to varying levels of self-esteem. There were significant moderating effects of

Table 3
Multilevel Regressions: Attachment Dimensions Predicting Negative Affect and the Moderating Effect of Self-Critical Perfectionism

Parameter	Unstandardized Estimate	*SE*
A. Self-Critical Perfectionism × Fear of Closeness Model		
Level 2		
Intercept	18.988***	.336
Self-critical perfectionism	1.813***	.337
Level 1		
Fear of closeness	.145***	.039
Cross-level interaction		
Self-Critical Perfectionism × Fear of Closeness	.079*	.039
B. Self-Critical Perfectionism × Fear of Dependency Model		
Level 2		
Intercept	18.998***	.337
Self-critical perfectionism	1.816***	.338
Level 1		
Fear of dependency	.151***	.030
Cross-level interaction		
Self-Critical Perfectionism × Fear of Dependency	−.037	.031
C. Self-Critical Perfectionism × Fear of Loss Model		
Level 2		
Intercept	18.987***	.336
Self-critical perfectionism	1.818***	.337
Level 1		
Fear of loss	.145***	.036
Cross-level interaction		
SC Perfectionism × Fear of Loss	−.010	.033

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

both SC perfectionism and PS perfectionism on the relation between daily self-esteem and negative affect. Significant moderator effects were interpreted by calculating simple slopes for each level of the independent variables, which were defined as one standard deviation above or below the mean for high and low levels, respectively (see Jaccard, Turrisi, & Wan, 1990). As shown in Figure 1, there was a significant negative relation between self-esteem and negative affect

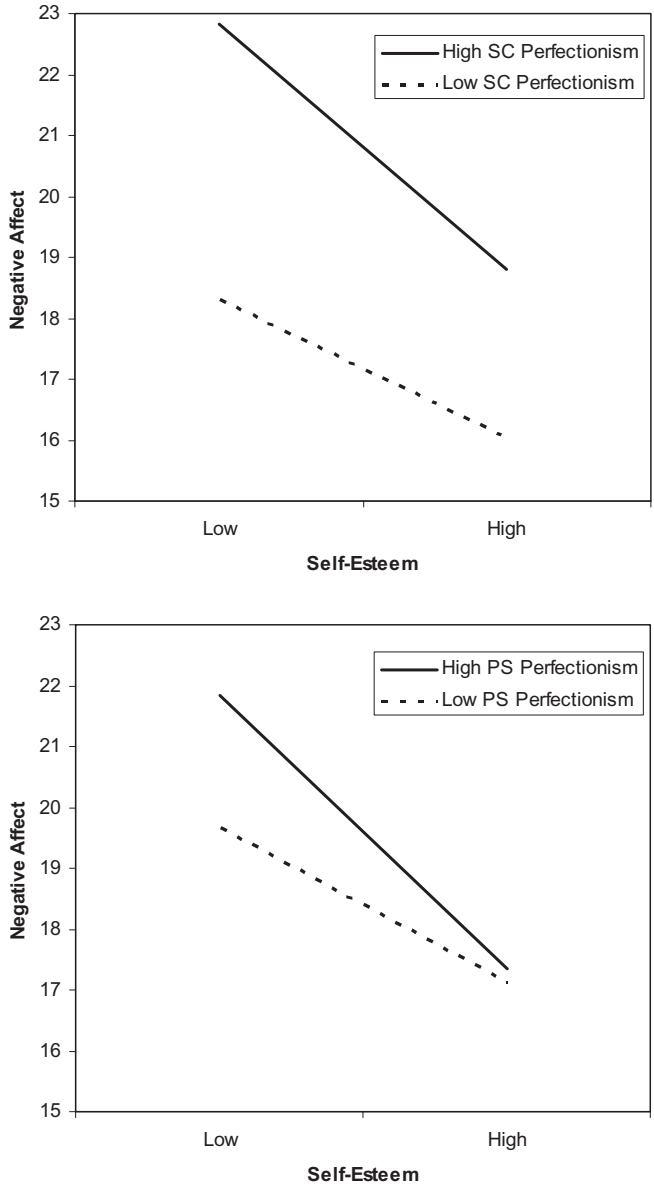

Figure 1
Relation between daily self-esteem and negative affect as a function of SC perfectionism (top) and PS perfectionism (bottom), respectively. Values for SC perfectionism, PS perfectionism, and self-esteem are plotted using low (one standard deviation below the mean) and high (one standard deviation above the mean) values.

for high-SC perfectionists, slope = –0.22, $t(55) = -7.76$, $p < .001$, and for high-PS perfectionists, slope = –0.25, $t(974) = -10.37$, $p < .001$. There was also a significant but weaker negative relation between self-esteem and negative affect for low-SC perfectionists, slope = –0.12, $t(55) = -3.46$, $p < .001$, and for low-PS perfectionists, slope = –0.14, $t(974) = -5.40$, $p < .001$. Thus, high-SC perfectionists and high-PS perfectionists, relative to individuals with low scores on the respective perfectionism dimension, reported greater increases in negative affect on days when they experienced lower levels of self-esteem. However, it should be mentioned that when the SC/PS Perfectionism × Self-Esteem interaction terms were entered simultaneously, the SC Perfectionism × Self-Esteem interaction and the PS Perfectionism × Self-Esteem interaction were no longer significant ($p > .10$), which suggested that the significance of the interaction terms was due to their shared variance.[3]

Attachment fears predicting negative affect: Moderating effect of SC perfectionism. The next analyses examined affective reactivity to the various attachment fears (fear of closeness, fear of dependency, fear of loss) in three separate multilevel models. In addition, SC perfectionism and PS perfectionism were tested in separate models as moderators of the within-person relations between attachment dimensions and negative affect.

Individuals, on average, were reactive to fear of closeness, fear of dependency, and fear of loss, respectively (see Table 3). In addition, as hypothesized, the relation between negative affect and fear of closeness was moderated by SC perfectionism. Specifically, as shown in Figure 2, there was a significant relation between fear of closeness and negative affect for high-SC perfectionists, slope = 0.22, $t(934) = 4.51$, $p < .001$. In contrast, there was a nonsignificant relation between fear of closeness and negative affect for low-SC perfectionists, slope = 0.07, $t(934) = 1.08$, *ns*. Therefore, high-SC

3. Given that SC perfectionism was strongly related to aggregated daily self-esteem (see Table 1), we examined how negative affect reactivity in response to the self-esteem fluctuations might vary as a function of aggregated daily (trait-like) self-esteem. In this multilevel model, we used self-esteem as a Level 1 predictor of negative affect, and aggregated daily self-esteem as a Level 2 (between-persons) predictor to predict differences in this within-person relationship. The aggregated Daily Self-Esteem × Self-Esteem cross-level interaction term did not approach significance ($p > .47$) and, thus, was not considered further.

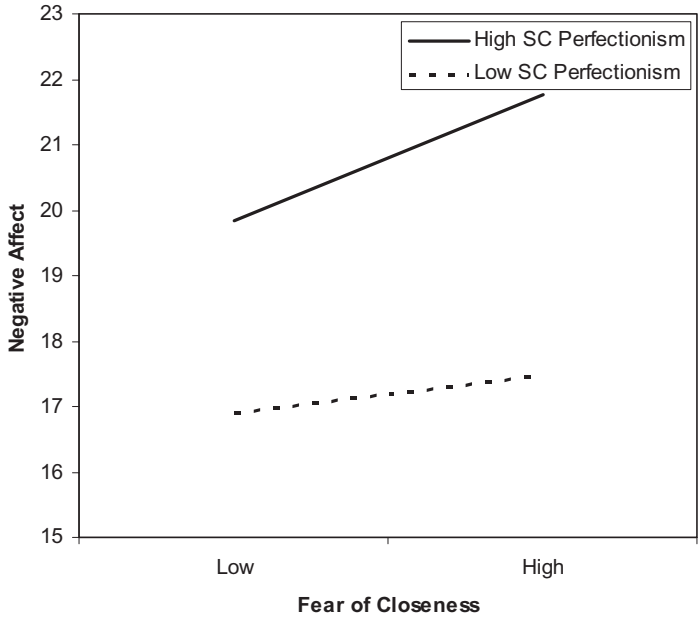

Figure 2
Relation between fear of closeness and negative affect as a function of SC perfectionism. Values for SC perfectionism and fear of closeness are plotted using low (one standard deviation below the mean) and high (one standard deviation above the mean) values.

perfectionists, compared with low-SC perfectionists, experienced increases in negative affect on days when they experienced higher levels of fear of closeness. None of the other interactions between SC perfectionism and the other attachment dimensions (fear of dependency, fear of loss), and between PS perfectionism and any attachment dimensions, were significant.

DISCUSSION

The present study replicated past findings demonstrating the utility of considering perfectionism as consisting of two higher-order dimensions (see Dunkley, Blankstein, et al., 2006; Stoeber & Otto, 2006), which we refer to as self-critical perfectionism and personal standards perfectionism. The present study was the first to use a daily

diary methodology in order to examine both dispositional and situational influences of perfectionism dimensions on daily self-esteem and attachment. Moreover, the present study examined whether SC/PS perfectionists were more emotionally reactive to daily fluctuations in self-esteem and attachment fears of closeness.

Before examining the dispositional and situational influences of perfectionism dimensions on daily self-esteem and attachment, we assessed the extent to which there are consistent differences among individuals in their daily levels of self-esteem and attachment dimensions. Although there is a tendency in cognitive and intrapsychic theories to treat self-esteem and attachment styles as static, internal properties or structures that the individual "has" (see Zuroff & Fitzpatrick, 1995), the percentages of between-persons versus within-person variability in the daily self-esteem and attachment variables attest to the importance of considering both trait and situational influences in describing an individual's self-esteem and attachment (e.g., Greenier et al., 1999; Mikulincer & Shaver, 2007). The notion that changes in self-esteem and attachment occur across situational contexts in individuals who can also be characterized as having stable traits of self-esteem and attachment is consistent with the current view of traits in general (see Moskowitz, 2009; Moskowitz, Brown, & Coté, 1997).

Aggregating situational reports has been argued by several authors to be a more ecologically valid method for assessing traits than retrospective summary questionnaires that are more subject to recall biases and distortions (see Bolger et al., 2003; Epstein, 1979; Moskowitz, 1986). SC perfectionism was strongly related ($r = -.66$) to aggregated daily lower self-esteem (see Table 1), which is remarkably close to the range of relations (rs between $-.62$ and $-.67$) between SC perfectionism variables and retrospective dispositional measures of self-esteem reported in previous studies (e.g., Blankstein et al., 2008; Dunkley & Grilo, 2007; Rice et al., 1998). Similarly, SC perfectionism was moderately to strongly related to aggregated daily fear of closeness ($r = .55$), fear of dependency ($r = .54$), and fear of loss ($r = .43$), which is quite similar to the relations between self-criticism and retrospective dispositional measures of fear of closeness ($r = .44$), fear of dependency ($r = .52$), and fear of loss ($r = .44$) reported by Zuroff and Fitzpatrick (1995). These results extend previous studies using retrospective dispositional measures of self-esteem and attachment by demonstrating that individuals with

higher SC perfectionism possess a global negative view of the self along with several attachment fears on a day-to-day basis. Moreover, these findings are in keeping with the sociometer model of self-esteem (e.g., Leary et al., 1995): Individuals with higher SC perfectionism are characterized by attachment fears reflecting concerns about inclusion (e.g., gaining others' approval) and exclusion (e.g., avoiding disapproval and rejection), which contribute to lower self-esteem in these individuals. High scores on fear of closeness may reflect SC perfectionists' avoidant response to fears of criticism and rejection, whereas their high scores on fear of loss of relationships may reflect their anxious apprehension about obtaining others' respect and admiration. Additionally, their high scores on fear of dependency on others may reflect an avoidant response to anticipated negative reactions from others and/or their desire to present themselves as perfect and self-reliant in order to gain others' approval (see DiBartolo et al., 2008; Hewitt, Flett, Sherry et al., 2003; Zuroff & Fitzpatrick, 1995).

The present study also expanded on previous studies that examined the relations between perfectionism and retrospective summary measures of self-esteem and attachment dimensions by examining how perfectionism dimensions relate to instability in daily self-esteem and attachment fears. SC perfectionism was associated with the instability indexes of self-esteem, fear of closeness, fear of loss, and negative affect. These results are consistent with suggestions that individuals who score high on SC perfectionism are vulnerable to fluctuations in self-esteem and attachment. For instance, the relation between SC perfectionism and instability in self-esteem might reflect that SC perfectionists have contingent self-worth that is dependent on activity, accomplishment, and/or performance (DiBartolo et al., 2008; McArdle, 2009; Sturman et al., 2009). In addition, the relation between SC perfectionism and instability in attachment fears (fear of closeness, fear of loss) might be reflective of whether or not disapproval/approval from others is perceived on a day-to-day basis (e.g., Blatt, 1995; Hamachek, 1978).

In addition, although the PS dimension of perfectionism exhibited significant zero-order correlations with aggregated daily lower self-esteem and attachment fears, PS perfectionism became positively related to self-esteem and was no longer significantly related to the attachment fears once shared variance with SC perfectionism was controlled for. Similarly, PS perfectionism was related to

instability in negative affect, but this relation became nonsignificant once one controlled for the shared variance with SC perfectionism. Thus, these results are in keeping with several previous studies that demonstrate that the direct associations between perfectionism and psychological problems are more closely related to self-critical evaluative tendencies than the setting of and striving for high personal standards (Dunkley, Blankstein, et al., 2006; Stoeber & Otto, 2006).

The present study was the first to employ multilevel modeling to examine the effects of perfectionism dimensions on reactivity to daily self-esteem and attachment fears. We examined whether increases in negative affect for SC/PS perfectionists might be explained by their heightened reactivity to increases/decreases in daily self-esteem and fear of closeness. Consistent with previous studies (e.g., Pelham & Swann, 1989), participants on average reported increases in negative affect on days when they experienced lower levels of self-esteem (see Table 2). Further, both high-SC perfectionists and high-PS perfectionists, relative to participants scoring low on the respective dimension, reported greater increases in negative affect on days when they experienced lower self-esteem (see Figure 1). Interestingly, neither the SC Perfectionism × Self-Esteem interaction nor the PS Perfectionism × Self-Esteem interaction was significant when these interaction terms were estimated simultaneously. This result suggests that, although individuals with higher SC perfectionism experience lower self-esteem (see Table 1), heightened affective vulnerability to one's own self-scrutiny and judgment might be a shared effect that generally applies to individuals who are preoccupied with self-worth, self-definition, and self-control (see Blatt, 1995), regardless of whether the specific focus is on high personal standards or self-critical evaluative tendencies.

In keeping with previous studies (see Mikulincer & Shaver, 2007), participants generally reported more negative affect on days when they experienced attachment fears of closeness, dependency, and loss, respectively (see Table 3). Further, as expected, high-SC perfectionists, relative to low-SC perfectionists, experienced more negative affect on days when they experienced higher levels of fear of closeness (see Figure 2). These results suggest that, in addition to experiencing greater attachment fears of closeness (see Table 1), SC perfectionists are especially threatened by heightened fears of closeness with others, which might reflect anticipated negative reactions

from others (see DiBartolo et al., 2008; Hewitt, Flett, Sherry, et al., 2003; Zuroff & Fitzpatrick, 1995).

Thus, these results provide support for the congruency hypothesis, which contends that both SC perfectionists and PS perfectionists are especially vulnerable to personal failure. Moreover, SC perfectionists are similar to "rejection sensitive" individuals (e.g., Romero-Canyas et al., 2010) in being especially vulnerable to criticism from others, and relatively less vulnerable to threats concerning loss of relationships and dependency on others (see Blatt, 1995; Dunkley et al., 2003). These results are generally consistent with previous studies that have found that SC perfectionism interacts with self-esteem (Rice et al., 1998) and attachment dimensions (Wei et al., 2004) to predict depressive symptoms using between-persons designs and analyses. However, the present study incorporated a within-person design and analyses, which provided a richer picture of how perfectionism dimensions moderate daily affective reactivity to fluctuations in self-esteem and attachment fears (see Tennen et al., 2000). Thus, our findings illuminate the utility of using within-person designs and analyses in future tests of the congruency hypothesis.

Overall, these findings are in keeping with clinical observations dating back several decades concerning the links between perfectionism and both lower self-esteem (e.g., Horney, 1950) and insecure attachment orientations that develop in environments of disapproval, inconsistent approval, and/or conditional approval (e.g., Blatt & Homann, 1992; Hamachek, 1978; Missildine, 1963). Our study extended the extant literature demonstrating the link between perfectionism and retrospective, dispositional measures of self-esteem and attachment by incorporating a daily diary methodology to provide a more nuanced understanding of the dispositional and moderating influences of perfectionism dimensions on self-esteem, attachment fears, and negative affect on a daily basis. Moreover, the findings contribute to the recent debate about the nature of the perfectionism construct more broadly (see Dunkley, Blankstein, et al., 2006; Hewitt, Flett, Besser, et al., 2003; Shafran, Cooper, & Fairburn, 2002). Shafran et al. (2002) argued that "negative beliefs regarding other people's expectations and evaluations of the individual . . . are not integral to the construct of perfectionism with its intrinsic notion of self-motivated, self-imposed, personally demanding standards" (p. 777). However, the present findings clearly underscore the interpersonal nature of perfectionism, as counterargued by

Hewitt, Flett, Besser, et al. (2003) in their summary of early theoretical work and Dunkley, Blankstein, et al. (2006) in their review of interpersonal processes that might explain the link between SC perfectionism and distress outcomes.

It is important to briefly consider the clinical implications of these results, particularly given that SC perfectionism has been found to have a negative impact on the effective treatment of psychological symptoms (e.g., Marshall, Zuroff, McBride, & Bagby, 2008; Rector, Bagby, Segal, Joffe, & Levitt, 2000; see Blatt & Zuroff, 2005, for a review). The broad implications for intervention of the present study are as follows: (1) in addressing the psychosocial problems associated with perfectionism in treatment, clinicians should focus more closely on self-critical evaluative tendencies than on high personal standards (e.g., Dunkley, Blankstein, et al., 2006); (2) in addressing self-critical evaluative tendencies, it is important to target the dispositional and situational influences of SC perfectionism on both intra- and interpersonal processes (see Dunkley, Blankstein, et al., 2006; Hewitt, Flett, Besser, et al., 2003; Zuroff et al., 2004); and (3) decreasing SC and PS perfectionists' negative affect might be accomplished by enhancing their self-esteem and, for SC perfectionists only, reducing their attachment fears of closeness with others. The present study indicated that changes occur in self-esteem and attachment fears day-to-day in individuals and that these changes especially have an impact on SC/PS perfectionists' daily affect and, thus, could be appropriate targets in an intervention approach to treat psychological distress symptoms in these individuals.

Although the methodology used in this study was an advance over previous studies relying on retrospective, global, one-occasion self-reports, there were some limitations and areas that warrant attention in future research. We assessed self-esteem and attachment only once per day and, therefore, were unable to capture the fluctuations in self-esteem and attachment as they are experienced during the day. Further, as the measures were completed at the end of the day, we could not ascertain the direction of causality among variables, and it is possible, for example, that affect influenced the reports of self-esteem and attachment fears. Future research assessing participants' affect, self-esteem, and attachment throughout the day would help to capture the fluctuations as they are occurring and would be beneficial in determining the direction of causality of the relations observed in this study. In addition, we did not measure aspects of situations

during the day that might have explained that day's level of self-esteem, attachment, and affect. For example, although individuals with higher SC perfectionism experienced fluctuations on the attachment variables, we were unable to ascertain whether this was dependent on whether or not performance expectations were met and disapproval/approval was perceived on a day-to-day basis, as theorized. More research is needed to fully expand on this initial foray into understanding the daily manifestations of perfectionism in relation to self-esteem and attachment. In addition, cognitive priming studies in which individuals are exposed to experimental stimuli and their subsequent cognitive reactions are examined would be useful to better inspect emotional reactivity to events that impact self-esteem and attachment (see Ingram, Miranda, & Segal, 1998). Finally, the present results are based on a university student sample, and their generalizability to clinical populations needs to be examined.

CONCLUSION

The present study supports the growing recognition of the influence of both dispositional and situational factors in self-esteem and attachment (e.g., Kernis, 2005; Mikulincer & Shaver, 2007). It is clear that there are consistent differences between individuals but also changes within individuals in everyday self-esteem and attachment fears. Moreover, these results further demonstrate the importance of distinguishing between PS and SC higher-order dimensions of perfectionism. In contrast to PS perfectionists, SC perfectionists experienced both lower levels of daily self-esteem and higher levels of attachment fears, and more instability in daily self-esteem, attachment fears, and affect. Both SC perfectionists and PS perfectionists exhibited heightened emotional reactivity to decreases in self-esteem, whereas only SC perfectionists exhibited heightened emotional reactivity to increases in fear of closeness with others.

REFERENCES

Alden, L. E., Ryder, A. G., & Mellings, T. M. B. (2002). Perfectionism in the context of social fears: Toward a two-component model. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 373–391). Washington, DC: American Psychological Association.

Bardone-Cone, A. M., Wonderlich, S. A. , Frost, R. O., Bulik, C. M., Mitchell, J. E., Uppala, S., et al. (2007). Perfectionism and eating disorders: Current status and future directions. *Clinical Psychology Review*, **27**, 384–405.

Blankstein, K. R., Dunkley, D. M., & Wilson, J. (2008). Evaluative concerns and personal standards perfectionism: Self-esteem as a mediator and moderator of relations with personal and academic needs and estimated GPA. *Current Psychology*, **27**, 29–61.

Blatt, S. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist*, **50**, 1003–1020.

Blatt, S. J. (2004). *Experiences of depression: Theoretical, clinical and research perspectives.* Washington, DC: American Psychological Association.

Blatt, S. J., D'Afflitti, J. P., & Quinlan, D. M. (1976). Experiences of depression in normal young adults. *Journal of Abnormal Psychology*, **85**, 383–389.

Blatt, S. J., & Homann, E. (1992). Parent-child interaction in the etiology of dependent and self-critical depression. *Clinical Psychology Review*, **12**, 47–91.

Blatt, S. J., & Zuroff, D. C. (1992). Interpersonal relatedness and self-definition: Two prototypes for depression. *Clinical Psychology Review*, **12**, 527–562.

Blatt, S. J., & Zuroff, D. C. (2005). Empirical evaluation of the assumptions in identifying evidence based treatments in mental health. *Clinical Psychology Review*, **25**, 459–486.

Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, **54**, 579–616.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York: Guilford Press.

Cantazaro, A., & Wei, M. (2010). Adult attachment, dependence, self-criticism, and depressive symptoms: A test of a mediational model. *Journal of Personality*, **78**, 1135–1162.

Clara, I. P., Cox, B. J., & Enns, M. W. (2007). Assessing self-critical perfectionism in clinical depression. *Journal of Personality Assessment*, **88**, 309–316.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, **58**, 644–663.

Cranford, J. A., Shrout, P. E., Iida, M., Rafaeli, E., Yip, T., & Bolger, N. (2006). A procedure for evaluating sensitivity to within-person change: Can mood measures in diary studies detect change reliably? *Personality and Social Psychology Bulletin*, **32**, 917–929.

Davila, J., Bradbury, T. N., & Fincham, F. (1998). Negative affectivity as a mediator of the association between adult attachment and marital satisfaction. *Personal Relationships*, **5**, 467–484.

DiBartolo, P. M., Yen Li, C., & Frost, R. O. (2008). How do the dimensions of perfectionism relate to mental health? *Cognitive Therapy and Research*, **32**, 401–417.

Dunkley, D. M., Blankstein, K. R., Masheb, R. M., & Grilo, C. M. (2006). Personal standards and evaluative concerns dimensions of "clinical"

perfectionism: A reply to Shafran et al. (2002, 2003) and Hewitt et al. (2003). *Behaviour Research and Therapy*, **44**, 63–84.

Dunkley, D. M., & Grilo, C. M. (2007). Self-criticism, low self-esteem, depressive symptoms and over-evaluation of shape and weight in binge-eating disorder patients. *Behaviour Research and Therapy*, **45**, 139–149.

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.

Dunkley, D. M., Zuroff, D. C., & Blankstein, K. R. (2006). Specific perfectionism components versus self-criticism in predicting maladjustment. *Personality and Individual Differences*, **40**, 665–676.

Egan, S. J., Wade, T. D., & Shafran, R. (2011). Perfectionism as a transdiagnostic process: A clinical review. *Clinical Psychology Review*, **31**, 203–212.

Epstein, S. (1979). The stability of behavior: I. On predicting most of the people much of the time. *Journal of Personality and Social Psychology*, **37**, 1097–1126.

Flett, G. L., & Hewitt, P. L. (Eds.). (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 5–13). Washington, DC: American Psychological Association.

Fraley, C. R. (2007). A connectionist approach to the organization and continuity of working models of attachment. *Journal of Personality*, **75**, 1157–1180.

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. A., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research*, **14**, 449–468.

Greenier, K. D., Kernis, M. H., McNamara, C. W., Waschull, S. B., Berry, A. J., Herlocker, C. E., et al. (1999). Individual differences in reactivity to daily events: Examining the roles of stability and level of self-esteem. *Journal of Personality*, **67**, 185–208.

Griffin, D. W., & Bartholomew, K. (1994a). The metaphysics of measurement: The case of adult attachment. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships: Attachment processes in adulthood* (Vol. 5, pp. 17–52). London: Jessica Kingsley.

Griffin, D., & Bartholomew, K. (1994b). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, **67**, 430–445.

Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology*, **15**, 27–33.

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*, **60**, 456–470.

Hewitt, P. L., & Flett, G. L. (1993). Dimensions of perfectionism, daily stress, and depression: A test of the specific vulnerability hypothesis. *Journal of Abnormal Psychology*, **102**, 58–65.

Hewitt, P. L., Flett, G. L., Besser, A., Sherry, S. B., & McGee, B. (2003). Perfectionism is multidimensional: A reply to Shafran, Cooper, and Fairburn (2002). *Behaviour Research and Therapy*, **41**, 1221–1236.

Hewitt, P. L., Flett, G. L., Sherry, S. B., Habke, M., Parkin, M., Lam, R. W., et al. (2003). The interpersonal expression of perfection: Perfectionistic self-presentation and psychological distress. *Journal of Personality and Social Psychology*, **84**, 1303–1325.

Hill, R. W., Huelsman, T. J., & Araujo, G. (2010). Perfectionistic concerns suppress associations between perfectionistic strivings and positive life outcomes. *Personality and Individual Differences*, **48**, 584–589.

Horney, K. (1950). *Neurosis and human growth: The struggle toward self-realization.* New York: Norton.

Ingram, R. E., Miranda, J., & Segal, Z. V. (1998). *Cognitive vulnerability to depression*. New York: Guilford Press.

Jaccard, J., Turrisi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression.* Newbury Park, CA: Sage.

Kernis, M. H. (2005). Measuring self-esteem in context: The importance of stability of self-esteem in psychological functioning. *Journal of Personality*, **73**, 1569–1605.

Kernis, M. H., Cornell, D. P., Sun, C. R., Berry, A., & Harlow, T. (1993). There's more to self-esteem than whether it is high or low: The importance of stability of self-esteem. *Journal of Personality and Social Psychology*, **65**, 1190–1204.

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, **68**, 518–530.

Marshall, M. B., Zuroff, D. C., McBride, C., & Bagby, R. M. (2008). Self-criticism predicts differential response to treatment for major depression. *Journal of Clinical Psychology*, **64**, 231–244.

McArdle, S. (2009). Exploring the development of perfectionistic cognitions and self-beliefs. *Cognitive Therapy and Research*, **33**, 597–614.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford Press.

Missildine, W. H. (1963). *Your inner child of the past.* New York: Simon & Schuster.

Mongrain, M., & Zuroff, D. C. (1995). Motivational and affective correlates of dependency and self-criticism. *Personality and Individual Differences*, **18**, 347–354.

Moore, C., & Barrow, J. C. (1986). Perfectionistic thinking in university students: Implications for individual treatment. In J. E. Talley & W. J. K. Rockwell (Eds.), *Counseling and psychotherapy with college students: A guide to treatment* (pp. 100–112). New York: Praeger.

Moskowitz, D. S. (1986). Comparison of self-reports, reports by knowledgeable informants, and behavioral observation data. *Journal of Personality*, **54**, 294–317.

Moskowitz, D. S. (2009). Coming full circle: Conceptualizing the study of interpersonal behaviour. *Canadian Psychology*, **50**, 33–41.

Moskowitz, D. S., Brown, K. W., & Coté, S. (1997). Reconceptualizing stability: Using time as a psychological dimension. *Current Directions in Psychological Science*, **6**, 127–132.

Okada, R. (2010). A meta-analytic review of the relation between self-esteem level and self-esteem instability. *Personality and Individual Differences*, **48**, 243–246.

Pelham, B. W., & Swann, W. B. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology*, **57**, 672–680.

Powers, T. A., Zuroff, D. C., & Topciu, R. A. (2004). Covert and overt expressions of self-criticism and perfectionism and their relation to depression. *European Journal of Personality*, **18**, 61–72.

Rector, N. A., Bagby, R. M., Segal, Z. V., Joffe, R., & Levitt, A. (2000). Self-criticism and dependency in depressed patients treated with cognitive therapy or pharmacotherapy. *Cognitive Therapy and Research*, **24**, 569–582.

Rice, K. G., Ashby, J. S., & Slaney, R. B. (1998). Self-esteem as a mediator between perfectionism and depression: A structural equations analysis. *Journal of Counseling Psychology*, **45**, 304–314.

Rice, K. G., Lopez, F. G., & Vergara, D. (2005). Parental/social influences on perfectionism and adult attachment orientations. *Journal of Social and Clinical Psychology*, **24**, 580–605.

Rogers, C. R. (1951). *Client-centered therapy.* Boston: Houghton-Mifflin.

Romero-Canyas, R., Downey, G., Berenson, K., Ayduk, O., & Kang, N. J. (2010). Rejection sensitivity and the rejection-hostility link in romantic relationship. *Journal of Personality*, **78**, 119–148.

Rosenberg, M. (1979). *Conceiving the self.* New York: Basic Books.

Schwartz, J. E., Neale, J., Marco, C., Shiffman, S. S., & Stone, A. A. (1999). Does trait coping exist? A momentary assessment approach to the evaluation of traits. *Journal of Personality and Social Psychology*, **77**, 360–369.

Schwartz, J. E., & Stone, A. A. (1998). Strategies for analyzing ecological momentary data. *Health Psychology*, **17**, 6–16.

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.

Stoeber, J., & Childs, J. H. (2010). The assessment of self-oriented and socially prescribed perfectionism: Subscales make a difference. *Journal of Personality Assessment*, **92**, 577–585.

Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review*, **10**, 295–319.

Sturman, E. D., Flett, G. L., Hewitt, P. L., & Rudolph, S. G. (2009). Dimensions of perfectionism and self-worth contingencies in depression. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, **27**, 213–231.

Tennen, H., Affleck, G., Armeli, S., & Carney, M. A. (2000). A daily process approach to coping: Linking theory, research, and practice. *American Psychologist*, **55**, 626–636.

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.

Wei, M., Mallinckrodt, B., Russell, D. W., & Abraham, T. W. (2004). Maladaptive perfectionism as a mediator and moderator between attachment and depressive mood. *Journal of Counseling Psychology*, **51**, 201–212.

Winer, B. J. (1972). *Statistical principles in experimental design* (2nd ed.). New York: McGraw-Hill.

Zuroff, D. C., & Fitzpatrick, D. K. (1995). Depressive personality styles: Implications for adult attachment. *Personality and Individual Differences*, **18**, 253–265.

Zuroff, D. C., Mongrain, M., & Santor, D. A. (2004). Conceptualizing and measuring personality vulnerability to depression: Comment on Coyne and Whiffen (1995). *Psychological Bulletin*, **130**, 489–511.

Zuroff, D. C., Quinlan, D. M., & Blatt, S. J. (1990). Psychometric properties of the Depressive Experiences Questionnaire. *Journal of Personality Assessment*, **55**, 65–72.