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Advancing Complex Explanatory Conceptualizations of Daily Negative and Positive Affect: Trigger and Maintenance Coping Action Patterns

David M. Dunkley and Denise Ma
Lady Davis Institute - Jewish General Hospital
and McGill University

Ihno A. Lee
Stanford University

Kristopher J. Preacher
Vanderbilt University

David C. Zuroff
McGill University

The present study addressed a fundamental gap between research and clinical work by advancing complex explanatory conceptualizations of coping action patterns that trigger and maintain daily negative affect and (low) positive affect. One hundred ninety-six community adults completed measures of perfectionism, and then 6 months later completed questionnaires at the end of the day for 14 consecutive days to provide simultaneous assessments of appraisals, coping, and affect across different stressful situations in everyday life. Multilevel structural equation modeling (MSEM) supported complex explanatory conceptualizations that demonstrated (a) disengagement trigger patterns consisting of several distinct appraisals (e.g., event stress) and coping strategies (e.g., avoidant coping) that commonly operate together across many different stressors when the typical individual experiences daily increases in negative affect and drops in positive affect; and (b) disengagement maintenance patterns composed of different appraisal and coping maintenance factors that, in combination, can explain why individuals with higher levels of self-critical perfectionism have persistent daily negative affect and low positive mood 6 months later. In parallel, engagement patterns (triggers and maintenance) composed of distinct appraisals (e.g., perceived social support) and coping strategies (e.g., problem-focused coping) were linked to compensatory experiences of daily positive affect. These findings demonstrate the promise of using daily diary methodologies and MSEM to promote a shared understanding between therapists and clients of trigger and maintenance coping action patterns that explain what precipitates and perpetuates clients' difficulties, which, in turn, can help achieve the 2 overarching therapy goals of reducing clients' distress and bolstering resilience.

Keywords: stress, coping, affect, perfectionism, self-criticism

Over the past three decades, people in general have become increasingly aware of the influence of everyday psychological stress on mental and physical health (see Aldwin, 2007). Since 2007, the American Psychological Association (e.g., 2012) has commissioned an annual nationwide Stress in America survey that has repeatedly shown that "the nation is on the verge of a stress-induced public health crisis" (p. 5). Coping has been one of the most studied topics in all of contemporary psychology for several decades, with the fundamental goal being to identify cognitive appraisals and coping strategies to help individuals manage stressful problems and distressing emotions in the context of everyday life (Folkman & Moskowitz, 2000; Somerfield & McCrae, 2000). However, numerous authors have argued that coping research has provided findings that have little or no direct relevance to the specifics of intervention or everyday life (e.g., Coyne & Racioppo, 2000; Somerfield & McCrae, 2000).

If research findings are to become more translatable into clinical practice and everyday life, then it is important to address funda-

David M. Dunkley, Department of Psychiatry, Lady Davis Institute - Jewish General Hospital, Montreal, Quebec, Canada, and Departments of Psychiatry and Psychology, McGill University, Montreal, Quebec, Canada; Denise Ma, Department of Psychiatry, Lady Davis Institute - Jewish General Hospital, and Department of Psychiatry, McGill University; Ihno A. Lee, Department of Psychology, Stanford University; Kristopher J. Preacher, Department of Psychology and Human Development, Vanderbilt University; David C. Zuroff, Department of Psychology, McGill University.

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Correspondence concerning this article should be addressed to David M. Dunkley, Institute of Community and Family Psychiatry, Jewish General Hospital, 4333 Cote Ste. Catherine Road, Montreal, Quebec H3T 1E4, Canada. E-mail: david.dunkley@mcgill.ca

mental, person-centered questions (e.g., "Why does my client keep having difficulties?") that are most relevant to help achieve two overarching therapy goals of reducing clients' distress and bolstering resilience (see Kuyken, Padesky, & Dudley, 2009). Explanatory conceptualizations that synthesize theory and research with individual experience are needed to understand (a) the precipitants or triggers of clients' difficulties and (b) what maintains or perpetuates their problems. In evidence-based interventions such as cognitive behavior therapy (CBT), complex explanatory conceptualizations are often needed to synthesize cognitive appraisals, coping strategies, and social influences as distinct and important factors in order to capture the essence of clients' distress (see Kuyken et al., 2009). However, research has yet to test complex explanatory models that integrate several distinct stress and coping processes to better understand how distress or negative affect is triggered and maintained. Further, as both researchers (see Folkman & Moskowitz, 2000) and clinicians (see Kuyken et al., 2009) have focused more attention on alleviating negative mental health outcomes, it is not well understood how strengths trigger and maintain compensatory experiences of resilience or positive affect in daily stressful situations, which further obstructs a more holistic view of clients.

In addition, researchers often treat explanatory or path models as a matter of causal sequencing of components (e.g., insisting on temporal spacing of putatively causally related variables). Although this methodological stringency has been productive in many contexts, this tendency could ironically hinder practical progress in working with trigger and maintenance patterns that are difficult to "catch" because clients narrate, retrospectively, complete episodes (see Aldwin, 2007; Folkman & Moskowitz, 2004). In CBT, therapists emphasize the present in gathering several specific examples of clients' thoughts, feelings, and behaviors for many cross-sections of daily life (e.g., "I did not think I could write a good report and I thought that my supervisor would think I am stupid, so I delayed writing, which made the problem worse because I had less time to write, and I felt really nervous and afraid"). Therapists then develop *cross-sectional explanatory conceptualizations* by searching for themes and patterns across numerous situations when clients' presenting issues are activated to identify triggers and maintenance factors, which is most often sufficient to achieve CBT's goals of reducing distress and building resilience (see Kuyken et al., 2009). As conceptualization advances to higher levels of inference, therapists are guided by theory and collaborative feedback from the client.

Similar to CBT, we used a 14-day daily diary methodology in the present study to obtain simultaneous assessments of appraisals, coping, and affect for each individual across different stressful situations in their natural everyday environments. We then used multilevel structural equation modeling (MSEM) to evaluate cross-sectional explanatory conceptualizations focused on two different cross-sections of an individual's life that capture complex trigger (i.e., daily) and maintenance (i.e., average daily) patterns. First, we examined a within-person trigger model to synthesize several distinct appraisal (e.g., event stress) and coping (e.g., avoidant coping) processes that might commonly operate together when the typical individual experiences daily increases in negative affect and drops in positive affect. We also examined, in parallel, a set of distinct appraisal (e.g., perceived social support) and coping (e.g., problem-focused coping) processes that might be in play when the typical individual experiences daily increases in positive affect. Second, we examined a between-persons maintenance model to evaluate whether individuals with higher self-critical perfectionism experience persistent daily negative affect and low positive affect 6 months later because of several maintenance tendencies (i.e., daily stress, avoidant coping, low-perceived social support) associated with self-critical perfectionism. We also examined, in parallel, strengths (i.e., problem-focused coping) that might contribute to compensatory experiences of positive affect for individuals with higher personal standards.

Common Triggers of Daily Affect: Disengagement and Engagement Coping Action Patterns

Cognitive appraisals, coping strategies, interpersonal influences, and affect constantly influence each other in stressful situations (see Aldwin, 2007; Kuyken et al., 2009; Lazarus, 2000). Changes in any one or several of cognitive appraisals and coping strategies might trigger distress. Further, it is quite likely that different appraisal and coping components may assume more or less significance, depending on the stressful situation and/or what is most salient to the individual (see Aldwin, 2007; Folkman & Moskowitz, 2000). In parallel to understanding triggers of distress, it is also very important to clients to work toward alternative outcomes of positive mental health and normal functioning (see Kuyken et al., 2009). There are many different strengths that, joined together, contribute to increases in resilience in daily stressful situations. One implication is that simple explanatory models with only a few variables and paths (e.g., a $\rightarrow$ b $\rightarrow$ c) are likely to miss important features (e.g., interpersonal, cognitive, behavioral, affective) when applied to a client's presentation, and this omission may lead to preventable difficulties (see Kuyken et al., 2009).

We use the term *coping action patterns* to refer to sets of appraisals, behavior, and emotions that are organized around overarching classes of concerns (e.g., competence) and are commonly in play together across many different stressors (see Skinner, Edge, Altman, & Sherwood, 2003). Although there are many ways to group coping responses within the broad domain of coping, one of the oldest and most often used distinctions is between disengagement patterns, which are aimed at escaping the stressor and are emotionally negative, and engagement patterns, which are aimed at dealing with the stressor and are emotionally positive (see Carver & Connor-Smith, 2010; Skinner et al., 2003). In a therapeutic context, client engagement is a prerequisite for change (see Kuyken et al., 2009; Miller & Rollnick, 2013). Disengagement (e.g., avoidance) and engagement (e.g., problem-focused coping) coping responses are believed to be partly determined by appraisals of control or expectancies of succeeding or failing (see Carver & Connor-Smith, 2010). On the basis of Dunkley, Zuroff, and Blankstein's (2003) model that integrates various theoretical perspectives, we examined in parallel disengagement and engagement trigger patterns that are organized around threats and challenges to competence and are differentially linked to within-person variations in daily negative affect and positive affect.

Daily disengagement trigger patterns involve negative social (e.g., perceived criticism) and self (e.g., event stress) appraisals and disengagement coping strategies (e.g., avoidant coping) that commonly operate together to orient the individual's attention away from many daily stressors, which is connected to

within-person increases in negative affect for the typical individual. Helplessness appraisals of stressful situations, such as (a) fears of being judged and criticized by others (i.e., perceived criticism; Kuyken et al., 2009) and (b) perceived lack of control over the ability to successfully handle stressful situations (i.e., lower perceived control), are considered to be unique triggers of an avoidant coping response to give up or disengage even from minor stressors (Dunkley et al., 2003; see also Skinner et al., 2003). Perceived criticism, as a threat appraisal that blames the self, also often signals a higher level of experienced stress (i.e., event stress) and escalating negative affect (see DeLongis & Holtzman, 2005; Holahan, Moos, & Bonin, 1997; Skinner et al., 2003). Avoidant coping, a form of emotion-focused coping that often includes withdrawal and denial (see Folkman & Moskowitz, 2004), is increasingly being recognized as a maladaptive response to a variety of stressors (see Aldao, Nolen-Hoeksema, & Schweizer, 2010; Kuyken et al., 2009). For many stressful situations, engaging in avoidant coping might serve to increase the severity, duration, or both of the stressor, as well as to exacerbate the distress associated with stressful situations (e.g., Carver & Connor-Smith, 2010; Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Holahan, Holahan, Moos, Brennan, & Schutte, 2005).

Daily engagement trigger patterns involve constructive social (e.g., perceived social support) and self (e.g., perceived control) appraisals and engagement coping strategies (e.g., positive reinterpretation, problem-focused coping) that commonly facilitate one another to orient the individual's attention toward many daily stressors, which is linked to within-person increases in daily positive affect for the typical individual. *Perceived social support* refers to "individuals' beliefs that they have people who value and care about them and who are willing to try to help them if they need assistance or other support" (Sarason, Sarason, & Pierce, 1990 pp. 137–138). Such positive appraisals of social resources not only promote positive emotional experiences but also have been theorized to foster perceptions of control, even in situations that might otherwise seem overwhelming, and to influence the use of adaptive coping strategies, such as positive reinterpretation and problem-focused coping (see DeLongis & Holtzman, 2005; Holahan et al., 1997; Lazarus & Folkman, 1984; Sarason et al., 1990). Positive reinterpretation and problem-focused coping are two distinct but complementary coping strategies that are usually used in tandem in generating positive affect during stressful circumstances (see Folkman & Moskowitz, 2000, 2004; Lazarus, 2000). Positive reinterpretation (a form of emotion-focused coping) is directly related to positive affect and facilitates perceived controllability and the identification of instrumental actions for many stressors, including when there is a general lack of control, which should lead an individual to use or sustain problem-focused coping (see Carver, Scheier, & Weintraub, 1989; Folkman & Moskowitz, 2000). Looking for the positive in a bothersome situation may encourage the individual to turn to new goals that are more readily attainable. Problem-focused coping, in turn, makes it possible for an individual to experience positive feelings of efficacy, mastery, and control for many stressors, even in situations that appear uncontrollable (see Folkman & Moskowitz, 2000).

Maintenance of Daily Affect: The Role of Perfectionism Dimensions and Disengagement and Engagement Coping Action Patterns

Just as many different processes can trigger shifts in affect, there are many pathways to the maintenance of negative affect and (low) positive affect. Over the past two decades, two higher order dimensions of perfectionism have been consistently identified that underlie many different perfectionism constructs and measures, with one dimension having some positive functional value and the other dimension being primarily maladaptive (see Dunkley, Blankstein, Masheb, & Grilo, 2006; Stoeber & Otto, 2006). These two higher order dimensions have been referred to as *personal standards* (PS) and *self-criticism* (SC), respectively (e.g., Dunkley et al., 2003). On the one hand, PS involves the setting of and striving for high standards and goals for oneself. On the other hand, SC involves constant and harsh self-scrutiny and overly critical self-evaluation tendencies that are closely linked with chronic concerns about others' criticism and disapproval (e.g., Dunkley et al., 2003). In contrast to measures that represent PS, SC measures have been consistently related to a wide range of psychopathology, including depressive and anxiety disorders (see Dunkley, Blankstein, et al., 2006; Egan, Wade, & Shafran, 2011), as well as a tendency to experience higher daily levels of negative affect and lower daily levels of positive affect (e.g., Dunkley, Zuroff, & Blankstein, 2006).

Relative to PS, SC is more closely related to disengagement maintenance patterns that contribute to intense, prolonged negative affect. Individuals with higher SC have a tendency to (a) generate daily stress for themselves by magnifying the negative aspects of events such that mundane difficulties can be interpreted as threatening stressors and (b) engage in avoidant coping, which stems from helplessness thinking that they are unable to cope with stressors to their own and others' satisfaction (Dunkley et al., 2000, 2003). In addition, individuals with higher SC often lack compensatory experiences of positive affect to provide a psychological respite because they typically do not use engagement resources and strategies. Specifically, individuals with higher SC often perceive that others are unwilling or unavailable to help them in times of stress (Dunkley et al., 2003). Subsequently, they lack an important resource (i.e., perceived social support) to encourage more adaptive coping strategies and make stressors seem less overwhelming (DeLongis & Holtzman, 2005; see also Dunkley et al., 2000; Holahan et al., 1997). In contrast, although individuals with higher PS may experience higher levels of daily stress, the negative impact of this characteristic might be offset to some degree by their mastery orientation, specifically, their adaptive tendency to engage in problem-focused coping in response to stressful situations (see Dunkley et al., 2000).

Several studies have tested mediation models with daily stress, avoidant coping, and perceived social support (Dunkley et al., 2000; Dunkley, Sanislow, Grilo, & McGlashan, 2006; Dunkley et al., 2003; Dunn, Whelton, & Sharpe, 2006) as explanatory variables in the association between SC measures and distress symptoms. Whereas most of these previous mediation studies used retrospective, one-occasion assessments of the mediators, Dunkley et al. (2003) incorporated a major methodological improvement by using a daily diary methodology and aggregating daily reports across several stressful situations to empirically derive mainte-

nance measures of daily stress, appraisals, coping, and affect. SEM results indicated that the relation between SC and negative affect maintenance over 7 days was mediated by daily avoidant coping and stress maintenance factors, whereas the relation between SC and the maintenance of lower positive affect over 7 days was mediated by event stress and lower perceived social support. However, although previous findings supported a relation between PS and problem-focused coping (e.g., Dunkley et al., 2000), PS was unrelated to aggregated daily problem-focused coping, which was uniquely related to positive affect.

The Present Study

In the present study, we used a daily diary methodology and MSEM to address a fundamental gap between research and clinical work by advancing complex explanatory conceptualizations of stress and coping patterns that trigger and maintain daily distress and (low) resilience.

Triggers of Daily Affect: Within-Person Model

Although previous studies have used daily diary designs and multilevel modeling to test stress and coping as stand-alone predictors of within-person changes in affect (e.g., Dunkley et al., 2003), research has not yet aimed to integrate or tie together several distinct interpersonal, cognitive, and behavioral processes that appear to commonly work in combination and link to variations in daily affect for the typical individual (see Aldwin, 2007; Folkman & Moskowitz, 2004; Lazarus, 2000). The use of MSEM in the present study was a substantial advance over previous research in that it allowed simultaneous tests of several hypothesized complex trigger patterns consisting of appraisals, coping, stress, and affect processes that vary together across a variety of daily situations, with participants serving as their own control across all the situations that they reported (see Preacher, Zyphur, & Zhang, 2010). In addition, the MSEM approach drew on a large number of participants to permit generalizations about common within-person trigger patterns for the typical individual beyond a sample size of one (Preacher et al., 2010). Moreover, MSEM allowed us to test complex within-person trigger patterns while combining the strengths of the single-level SEM approach (latent variables that control for measurement error, measures of model fit, complex models with multiple mediators) with the strengths of the multilevel modeling approach (handles clustering in nested data; see Preacher et al., 2010).

On the basis of Dunkley et al.'s (2003) theoretical model and findings along with further theoretical considerations discussed above, Figure 1 shows the hypothesized daily within-person explanatory model. The disengagement trigger hypotheses (a_W-h_W) tested were the following: (a) higher daily perceived criticism than usual would be uniquely connected to daily increases in avoidant coping (a_W) and event stress (b_W); (b) lower daily perceived control than usual would be uniquely linked to daily increases in avoidant coping (c_W); (c) avoidant coping would be uniquely connected to event stress (d_W); and (d) avoidant coping (e_W), perceived criticism (f_W), and event stress (g_W) would show unique associations with increases in negative affect. In addition, we hypothesized that higher daily event stress than usual would be linked to daily decreases in positive affect (h_W), in keeping with previous findings (e.g., Dunkley et al., 2003). Moreover, it was expected that tests of indirect effects would identify several complex and integrated disengagement trigger patterns composed of distinct appraisal and coping processes that, when tied together on a daily basis, are linked to daily increases in negative affect and drops in positive affect. In parallel, the engagement trigger hypotheses (i_W-r_W) tested were the following: (a) higher daily perceived social support than usual would account for daily increases in perceived control (i_W) and positive reinterpretation (j_W); (b) positive reinterpretation would be uniquely connected to perceived control (k_W); (c) perceived control (l_W), perceived social support (m_W), and positive reinterpretation (n_W) would show unique associations with problem-focused coping; and (d) perceived control (o_W), perceived social support (p_W), problem-focused coping (q_W), and positive reinterpretation (r_W) would each uniquely contribute to increases in positive affect (see Dunkley et al., 2003). Further, it was expected that tests of indirect effects would establish several combinations of engagement appraisal and coping processes that commonly join together across many stressors and are connected to daily increases in positive affect.

The effects of appraisals and coping on a given day were not expected to typically carry over to trigger changes in affect the following day. In understanding why an individual feels worse than usual on a given day, cross-sectional explanatory conceptualizations are predominantly used in clinical work and everyday life to focus on the immediate influences of appraisals and coping that occur in the same cross-section in which the change in the individual's affect occurred as opposed to what happened the day before (see Kuyken et al., 2009). Moreover, there is little theory and empirical evidence to suggest that the effects of appraisals and coping of a given day last long enough to contribute to within-person variations in the next day's affect (see Aldwin, 2007; Folkman & Moskowitz, 2004).

Maintenance of Daily Affect: Between-Persons Model

The between-persons maintenance model of the present study is based on the final model of Dunkley et al. (2003) and uses essentially the same measures, but incorporates two major methodological improvements. First, using SEM with only single observations (retrospective summary or aggregated daily) of stress, coping, and affect for each participant biases the regression weights for the indirect effects of perfectionism on affect through stress and coping due to using less reliable between-persons means (see Preacher et al., 2010). The use of MSEM in the present study provided unbiased estimates of between-cluster (or between-persons) means of several daily stress, coping, and affect reports for each participant that allowed a more rigorous test of the indirect effects of perfectionism dimensions on maintenance of daily affect through stress and coping than previous studies (see Preacher et al., 2010). Second, Dunkley et al. (2003) examined the relations between perfectionism dimensions and aggregated daily assessments of stress and coping over a short period of only 1 week. Although studies have demonstrated that perfectionism dimensions are relatively stable over time using correlational methods (see Zuroff, Mongrain, & Santor, 2004), no research has addressed the clinically important question of how personality traits impact on stress and coping maintenance patterns further into the future (see Carver & Connor-Smith, 2010). In the present

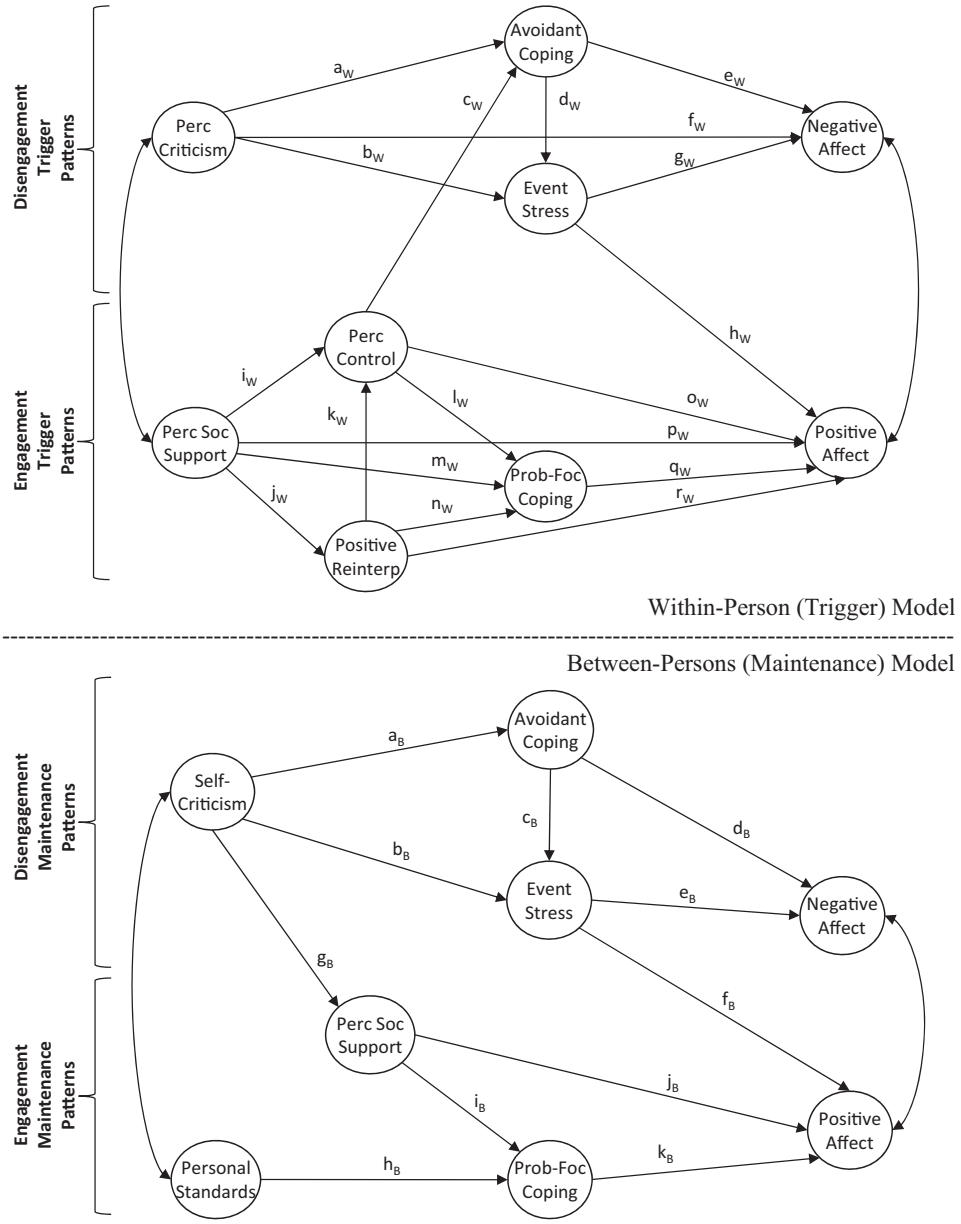

Figure 1. Hypothesized within-person (top panel) and between-persons (bottom panel) mediation models, based on Dunkley et al. (2003). Perc = Perceived; Soc = Social; Reinterp = Reinterpretation; Prob-Foc = Problem-Focused.

study, we examined the associations of perfectionism dimensions with more reliable estimates of average daily appraisals, coping, and affect over a longer period of time (e.g., 6 months) than the shorter periods (e.g., several weeks) reported in previous investigations (e.g., Dunkley et al., 2003).

On the basis of Dunkley et al.'s (2000, 2003) theoretical model and findings along with further theoretical considerations discussed above, Figure 1 depicts the between-persons maintenance model of the hypothesized relations of Time 1 SC and PS with Time 2 average daily appraisals, coping, and affect 6 months later. The disengagement maintenance hypotheses (a_B-f_B) were the following: (a) Time 1 SC will be related to Time 2 average daily avoidant coping (a_B) and event stress (b_B); (b) avoidant coping will be related to event stress (c_B); (c) avoidant coping (d_B) and event stress (e_B) will be uniquely related to Time 2 average daily negative affect; and (d) event stress will be related to Time 2 average daily lower positive affect (f_B). Further, we expected that Time 2 daily avoidant coping and event stress maintenance factors would mediate the relation between Time 1 SC and Time 2 maintenance of daily negative affect and lower positive affect. In parallel, the engagement maintenance hypotheses (g_B-k_B) were the following: (a) SC will be related to Time 2 average daily lower perceived social support (g_B); (b) PS (h_B) and perceived social support (i_B) will be uniquely related to Time 2 average daily

problem-focused coping; and (c) perceived social support (j_B) and problem-focused coping (k_B) will be uniquely related to Time 2 daily positive affect maintenance (see Figure 1). Further, we expected that Time 2 lower perceived social support maintenance would mediate the relation between Time 1 SC and Time 2 maintenance of daily lower positive affect. However, we anticipated that PS would have an indirect association with Time 2 maintenance of daily positive affect through maintenance of daily problem-focused coping. As perceived criticism, perceived control, and positive reinterpretation are not considered to be primary maintenance factors in the relation between perfectionism dimensions and affect maintenance (e.g., Dunkley et al., 2000, 2003), these variables were not included in the between-persons model in the interest of keeping the model as simple as pragmatically possible without losing essential meaning (cf. Kuyken et al., 2009).

Method

Participants

The present study presents analyses of the same sample of 223 community adults used in previous studies of the Time 1 measures (see Dunkley, Blankstein, & Berg, 2012; Dunkley & Kyparissis, 2008). A community sample of English- and French-speaking adults holding paid employment was recruited through newspaper advertisements and posted bulletins for a study that involved completion of questionnaires and subsequent completion of questionnaires for 14 consecutive days 6 months later. Participants were compensated $25 for completion of the Time 1 questionnaires. They received an additional $75 for completion of all 14 Time 2 daily questionnaires, or an amount that was proportional to the number of diaries completed.

Of the initial sample, 187 participants completed the daily diary procedure and mailed their data daily. Seventeen participants did not complete any diaries at Time 2. An additional eight participants were excluded due to failure to complete seven or more diaries. Two additional participants were excluded because all 14 diaries arrived together at the end of their diary recording period. An additional eight participants who mailed their diaries daily with one or two interruptions (e.g., participant mailed Diaries 1–6 consecutively, and then later mailed Diaries 7–14 consecutively) were included along with one participant who hand-delivered the diaries to the lab in four separate chunks of two to five diaries during the 14 days. The results for the present study were essentially identical regardless of whether these latter nine participants were included versus excluded from the analyses. The final sample included 196 participants (66 men, 130 women) who started to complete diaries approximately 6 months ($M = 5.99$, $SD = 0.45$) after completing the Time 1 questionnaires, with 190 participants completing 14 diaries, one completing the first 13 diaries, one completing the first 12 diaries, two completing 12 diaries with two periodic days of nonresponse (e.g., Days 5 and 12 missing), one completing the first nine diaries, and one completing the first eight diaries. Their mean age was 40.94 years ($SD = 12.25$). The majority of participants were of European descent (78%), with 6% Asian, 4% Middle Eastern, 3% African, 2% East Indian, 2% South American, 1% Aboriginal, 1% Caribbean, and 4% unspecified. Ninety-eight English-speaking participants (30 men, 68 women) completed the questionnaires in English, and 98 French-speaking participants (36 men, 62 women) completed the French translation of the questionnaires.

Procedure

At Time 1, participants completed a package of questionnaires, including measures of perfectionism, in a 1.5- to 2-hr laboratory session. During the Time 2 lab visit 6 months later, participants picked up a package containing 14 stamped and addressed envelopes, each containing a daily diary questionnaire booklet. They were instructed to complete one daily diary at bedtime, starting that night for the next 14 consecutive nights. The diary consisted of many of the same questionnaires used in Dunkley et al. (2003), including the measures of daily affect, event appraisals, coping, and perceived social support. They were then asked to mail the envelope with the completed diary the following morning. Participants were encouraged to complete their diaries every evening, but were advised to complete them as soon as possible the next morning, if they failed to complete their diary the previous night.

Measures

Given a bilingual population, the few items/scales for which a French translation was not available were translated from English to French using forward and back-translation by bilingual research assistants. The latent constructs (i.e., SC, PS, negative affect, positive affect, event stress, avoidant coping, problem-focused coping, perceived social support) were each assessed using multiple indicators, which are described below along with single measures of appraisals (perceived criticism, perceived control) and a coping strategy (positive reinterpretation).

Perfectionism. The measures of SC and PS were obtained from the Hewitt and Flett (1991) Multidimensional Perfectionism Scale (HMPS), the Frost, Marten, Lahart, and Rosenblate (1990) Multidimensional Perfectionism Scale (FMPS), the Almost Perfect Scale-Revised (APS-R; Slaney, Rice, Mobley, Trippi, & Ashby, 2001), the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976), and the Dysfunctional Attitude Scale (DAS; Weissman & Beck, 1978). The measured indicators of SC and PS were selected on the basis of previous factor analytic findings (e.g., Dunkley et al., 2012, 2003; Powers, Zuroff, & Topciu, 2004; see also Stoeber & Otto, 2006, for a review). SC was assessed by DEQ self-criticism, DAS self-criticism, FMPS concern over mistakes, HMPS socially prescribed perfectionism, and APS-R discrepancy. The DAS self-criticism scale was derived based on the factor analytic results of Imber et al. (1990), who found that 15 items loaded substantially on self-criticism. PS perfectionism was assessed by HMPS self-oriented perfectionism, FMPS personal standards, and APS-R high standards.

The reliability and validity of the DEQ (e.g., Zuroff et al., 2004), DAS (e.g., Dunkley & Kyparissis, 2008), HMPS (e.g., Hewitt & Flett, 1991), FMPS (e.g., Frost et al., 1990), and APS-R (e.g., Slaney et al., 2001) scales have been well established. Coefficient alphas in the present study for DEQ self-criticism (coefficient alpha for a weighted composite), DAS self-criticism, FMPS concern over mistakes, HMPS socially prescribed perfectionism, APS-R discrepancy, FMPS personal standards, HMPS self-oriented perfectionism, and APS-R high standards were 0.79, 0.90,

0.88, 0.87, 0.95, 0.82, 0.90, and 0.87, respectively. Available French versions of the DEQ, DAS, FMPS, and HMPS were administered to participants completing the study in French (see Dunkley et al., 2012; Dunkley & Kyparissis, 2008). The internal consistencies and validity of the French versions of the DEQ, DAS, FMPS, HMPS, and APS-R have been found to be similar to the original English versions (see Dunkley et al., 2012; Dunkley & Kyparissis, 2008).

Daily affect. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) is a 20-item scale that was used to measure positive and negative affect for *today*. The scales each consist of 10 adjectives, and the daily ratings have been found to be reliable and valid measures of these two distinct dimensions of affect. A validated French translation of the PANAS (Gaudreau, Sanchez, & Blondin, 2006) was administered to French-speaking participants. The negative affect and positive affect latent constructs were indicated by three subscales to improve their reliability and identifiability (see Kano, 1997). For the negative affect and positive affect latent factors, the corresponding scales were parceled into three subscales by selecting every third item, yielding one four-item subscale and two three-item subscales.

Event appraisals. Consistent with previous measures of daily coping (e.g., Dunkley et al., 2003), we asked participants to provide a brief description of the most bothersome event or issue of the day and answer the same questions about the event or issue as in Dunkley et al. (2003): "How unpleasant was the event or issue to you?" (from 1 = *not at all* to 11 = *exceptionally*), "For how long were you bothered by the event or issue?" (from 1 = *a very brief amount of time* to 7 = *a very large amount of time*), and "How stressful was the event or issue for you?" (from 1 = *not at all* to 11 = *exceptionally*). For the measurement and structural models, these global appraisal items (i.e., unpleasantness, duration, stressfulness) reflecting the severity, duration, or both of the event were used as indicators of the event stress latent construct, as in Dunkley et al. (2003). Two additional items assessed perceived control, "How much control did you feel you had over handling the event or issue to your satisfaction?" (from 1 = *none* to 7 = *very much*), and perceived criticism, "To what extent did you think your handling of the event or issue would result in criticism from another significant person(s)?" (from 1 = *not at all* to 7 = *very much*). Dunkley et al. (2003) found support for the internal consistency and validity of the event appraisal items.

To determine the kind of the most bothersome events or issues reported, the events were coded into achievement, interpersonal, and general categories, as in Dunkley et al. (2003). The three context categories were dummy coded (1 = Yes; 0 = No) and were not coded mutually exclusively. Examples of how reported events were coded into the variables achievement, interpersonal, and general, respectively, are "demanding work load" (1,0,0), "argument with spouse or partner" (0,1,0), and "political or social issues" (0,0,1). Two research assistants independently coded seven events from a random sample of 10 participants (70 events) and agreed on the achievement categorization for 64 of the 70 events (91%), the interpersonal categorization for 70 of the 70 events (100%), and the general categorization for 69 of the 70 events (98%). Having established reliability, the remainder of the events was coded.

Coping. After the appraisal section, participants indicated what they did *today* when they experienced the stressful event or issue. Participants completed selected four-item scales from the situational version of the COPE (Carver et al., 1989). Consistent with Dunkley et al. (2000, 2003), for the measurement and structural models, we formed two groups of coping strategies to assess avoidant coping (i.e., denial, behavioral disengagement, mental disengagement) and problem-focused coping (i.e., active coping, planning). The positive reinterpretation and growth scale assessed a separate coping category. The selected situational COPE scales have demonstrated reliability and validity (Carver et al., 1989; Dunkley et al., 2003). A validated French version of the COPE (Desbiens & Fillion, 2007) was administered to French-speaking participants. Internal consistencies and validity of the French version of the COPE have been reported and found to be comparable to the English version (Desbiens & Fillion, 2007).

Perceived social support. To assess perceived social support, participants answered the same questions used in Dunkley et al. (2003) about the extent to which each of three social provisions identified by Cutrona and Russell (1987) were potentially available in helping to handle the stressor *today* if the participant were to need them: reliable alliance ("With regard to this stressor, there are people I could have counted on to come to my assistance if I really needed it"), attachment ("With regard to this stressor, I have close relationships that could have provided me with a sense of emotional security and well-being if I were upset"), and guidance ("With regard to this stressor, there is a trustworthy person I could have turned to for advice or guidance if I were having problems"). These three items, rated from 1 (*strongly disagree*) to 7 (*strongly agree*), were used as indicators of perceived social support. Dunkley et al. (2003; Dunkley, Zuroff, & Blankstein, 2006) found support for the internal consistency and validity of this situational measure.

Results

Descriptive Statistics

All 196 participants completed the Time 1 measures. For the Time 1 PS and SC measures, the percentages of item nonresponse ranged from 0% for the APS-R high standards items to 0.5% for the APS-R discrepancy items. The 196 participants provided a total of 2,726 out of a possible 2,744 Time 2 daily reports of stress, appraisals, coping, social support, and affect, with 14 reports considered missing due to attrition and four reports considered missing due to nonresponse (see the Participants section above). Item nonresponse percentages for the daily measures were tiny, ranging from 0.4% for the 10 positive affect items to 2.2% for the perceived social support reliable alliance item. The percentage of missing scores ranged from 0.3% for the daily affect reports to 1.3% for the daily coping reports. We used the full information maximum likelihood robust estimator in Mplus 7.0 (Muthén & Muthén, 2012) to handle missing diary data, as this method provides less biased estimates relative to other methods for handling missing data (e.g., listwise deletion, mean substitution; see Schlomer, Bauman, & Card, 2010).

Participants reported many different kinds of most bothersome daily events, with participants reporting achievement (53%) and interpersonal events (60%) approximately equally and more frequently than general events (21%). Participants reported bothersome events that were a combination of achievement-interpersonal

categories with moderate frequency (25%), with events of other combinations of multiple categories (achievement and general; interpersonal and general; achievement, interpersonal, and general) reported with low frequency (6% or less). Table 1 shows the means, standard deviations, within-person reliabilities, between-persons reliabilities, and intraclass correlation coefficients (ICCs) for the Time 2 daily measures. Geldhof, Preacher, and Zyphur's (2013) procedure was used to compute within-person and between-persons reliabilities. The within-person reliabilities ranged from moderate to high (.70–.94), demonstrating the ability of the scales to detect differences in systematic changes of persons over days. The between-persons reliabilities were all high, ranging from .82 to .99, demonstrating the ability of the scales to differentiate persons at the average daily level. Consistent with previous studies (e.g., Dunkley et al., 2003), the ICC values for the daily variables ranged from .25 to .54, which suggests that daily event appraisals, coping, and affect exhibit small to large amounts of between-persons variation relative to within-person variation.

The means and internal consistencies of the perfectionism measures were previously reported (Dunkley et al., 2012; Dunkley & Kyparissis, 2008) to be comparable between participants who completed the English questionnaires and participants who completed the French questionnaires. In addition, we found comparable means, within-person and between-persons reliabilities, and ICCs for the Time 2 daily reports completed in either language. These descriptives for the English- and French-speaking participants are available from the first author.

Multilevel Confirmatory Factor Analysis

Using Mplus 7.0, multilevel confirmatory factor analysis (MCFA) was used to test the measurement models simultaneously at both the within-person and between-persons levels. Mplus permits the use of a maximum likelihood procedure that is robust to nonnormality of data and nonindependence of observations. The MCFA/MSEM method invokes compound symmetry, in that the repeated measures of a variable are assumed to be equally correlated regardless of how close together or far apart they are. The assumption of compound symmetry is consistent with the theoretical expectation discussed above about dependency among appraisal, coping, and affect variables largely dissipating from one measure (day) to the next. If it is incorrect to favor compound symmetry over an autoregressive structure, this would result in a partitioning of between- versus within-person variance that does not align well with the observed partitioning of variance, and this mismatch would be reflected in misfit of the model to the data.

The within-person measurement model estimated intercorrelations among six latent factors each with two or more indicators (avoidant coping, problem-focused coping, event stress, perceived social support, positive affect, negative affect), and three measured variables (perceived control, perceived criticism, positive reinterpretation and growth). The between-persons measurement model estimated correlations among the two between-persons latent factors (SC, PS), six daily latent factors, and three daily measured variables. The test of the within-person and between-persons models simultaneously resulted in the following excellent indices of

Table 1
Means, Standard Deviations, Within-Person and Between-Persons Reliabilities, and Intraclass Correlation Coefficients for the Time 2 Daily Measures of Stress, Event Appraisals, Coping, and Affect

Daily measure	*M* (*SD*)	Reliability of change (within-person)	Reliability (between-persons)	ICC
Event stress				
Unpleasantness	6.42 (2.87)	—	.87	.32
Stressfulness	5.76 (2.82)	—	.87	.33
Duration	3.90 (1.86)	—	.84	.27
Other event appraisals				
Perceived control	3.61 (1.82)	—	.82	.25
Perceived criticism	2.73 (1.82)	—	.85	.29
Avoidant coping				
Behavioral disengagement	5.67 (2.29)	.85	.99	.34
Mental disengagement	6.43 (2.45)	.70	.97	.43
Denial	5.26 (2.17)	.85	.99	.43
Problem-focused coping				
Active coping	8.59 (3.36)	.73	.94	.40
Planning	8.59 (3.43)	.92	.99	.40
Other coping				
Positive reinterpretation	7.97 (3.42)	.80	.99	.54
Perceived social support				
Reliable alliance	4.60 (1.84)	—	.89	.37
Attachment	4.76 (1.77)	—	.94	.53
Guidance	4.87 (1.74)	—	.94	.52
Negative affect	16.48 (6.41)	.90	.99	.45
Positive affect	26.51 (9.12)	.94	.99	.51

Note. Event stress, appraisals, and perceived social support are single-item factors; between-persons reliability (i.e., coefficient alpha) was calculated using the 14 repeated measurements for each item. ICC = intraclass correlation coefficient. Dashes indicate that within-person reliabilities were not calculated for single-item factors.

overall fit, $\chi^2(437) = 1043.75$, $p < .001$; Tucker-Lewis Index (TLI) = .953; comparative fit index (CFI) = .964; root-mean-square error of approximation (RMSEA; parsimony-adjusted fit) = .023; and standardized root-mean-square residual (SRMR; within/between) = .027/.063. Generally, TLI and CFI values over .90 (see Hoyle & Panter, 1995) suggest acceptable fit. RMSEA and SRMR values of .08 or less also indicate adequate fit (Hu & Bentler, 1999). As recommended by Ryu and West (2009), level-specific fit was evaluated at the within-person level and between-persons level by saturating the model (i.e., estimating all pairwise covariances as free parameters) at the between-persons level and within-person level, respectively. Thus, the saturated model fit would be perfect, and any global misfit would derive from the other level of the model being evaluated. The within-person level-specific fit was acceptable, $\chi^2(138) = 419.10$, $p < .001$; TLI = .932; CFI = .983; RMSEA = .027; and SRMR = .027. The between-persons level-specific fit was acceptable, $\chi^2(299) = 599.66$, $p < .001$; TLI = .966; CFI = .982; RMSEA = .019; and SRMR = .063.

The factor loadings for the within-person and between-persons models are presented in Table 2. Convergent validity for the daily measures was supported at both the within-person and between-persons levels (all standardized factor loadings were significant at $p < .001$). Standardized factor loadings ranged from .44 to .89 for the within-person model, which supported that the indicators of each of the event stress, perceived social support, avoidant coping, problem-focused coping, negative affect, and positive affect latent factors were systematically triggered together in a variety of daily situations for the typical individual. Standardized factor loadings ranged from .75 to .99 for the between-persons model, which supported that the indicators of each of the six daily latent factors were maintained together at the average daily level to differentiate individuals. Convergent validity for the personality vulnerability measures at the between-persons level was supported, as standardized factor loadings ranged from .83 to .88 for the three PS indicators and .66 to .90 for the five SC indicators (all were significant at $p < .001$). The correlations between the latent and measured variables at the within-person and between-persons levels are presented in Table 3. The disengagement variables (i.e., event stress, perceived criticism, avoidant coping, negative affect) and the engagement variables (i.e., perceived social support, positive reinterpretation, perceived control, problem-focused coping, positive affect) were interrelated, respectively, at both the within-person and between-persons levels. At the between-persons level, SC exhibited moderate to strong correlations with Time 2 disengagement variables and negative affect, whereas PS only was positively related to Time 2 problem-focused coping and positive reinterpretation.

MSEM

Mplus 7.0 was used to simultaneously test the hypothesized within-person and between-persons cross-sectional explanatory structural models, with the relations among daily factors at lag 0 (see Figure 1). The three measured variables (perceived criticism, perceived control, positive reinterpretation) that were omitted from the between-persons model in order to simplify the between-persons model without losing essential meaning were included in the within-person model by group-mean centering them so that between-persons variability was removed. This structural model resulted in the following acceptable overall fit indices, $\chi^2(417) = 1235.53$, $p < .001$; TLI = .941; CFI = .950; RMSEA = .027; and

Table 2
Measurement Model Factor Loadings for Daily Measures

	Within-person			Between-persons		
Latent factor and indicators	Unstnd.	*SE*	Stnd.	Unstnd.	*SE*	Stnd.
T2 event stress						
Unpleasantness	1.94	.06	.82	1.49	.11	.93
Stressfulness	2.02	.06	.88	1.55	.10	.95
Duration	1.17	.04	.74	.89	.06	.92
T2 avoidant coping						
Behavioral disengagement	1.24	.10	.67	1.00	.12	.75
Mental disengagement	.82	.08	.44	1.21	.16	.75
Denial	.78	.09	.48	1.11	.14	.78
T2 problem-focused coping						
Active coping	2.12	.06	.81	2.03	.13	.96
Planning	2.12	.06	.80	2.03	.13	.92
T2 perceived social support						
Reliable alliance	1.01	.05	.70	1.04	.07	.93
Attachment	.84	.05	.69	1.24	.08	.96
Guidance	.86	.05	.71	1.25	.08	.99
T2 negative affect						
Negative Affect #1	.36	.02	.70	.37	.04	.81
Negative Affect #2	.51	.02	.82	.45	.04	.95
Negative Affect #3	.42	.02	.76	.44	.03	.94
T2 positive affect						
Positive affect #1	.63	.02	.89	.62	.05	.96
Positive affect #2	.62	.02	.85	.63	.04	.92
Positive affect #3	.54	.02	.78	.67	.05	.92

Note. Unstnd. = Unstandardized; Stnd. = Standardized; T2 = Time 2.

Table 3
Measurement Model Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11
1. T1 personal standards	—										
2. T1 self-criticism	.64***	—									
3. T2 event stress	.15	.34***	—	.26***	−.04	.10**	.28***	.26***	.01	.51***	−.25***
4. T2 perceived criticism	.24***	.47***	.50***	—	.04	−.03	.23***	.04	.04	.21***	−.10***
5. T2 perceived control	.04	−.04	.09	.02	—	.10***	−.16***	.31***	.23***	−.05	.14***
6. T2 perc. social support	.08	−.18*	.09	.01	.40***	—	−.06	.22***	.20***	.04	.09**
7. T2 avoidant coping	.32***	.51***	.35***	.58***	.10	−.09	—	−.20***	.01	.25***	−.14***
8. T2 prob.-focused coping	.24**	.00	.22*	.11	.58***	.33***	.43***	—	.49***	.13***	.14***
9. T2 pos. reinterpretation	.21**	.03	.06	.13	.57***	.31***	.46***	.81***	—	.03	.20***
10. T2 negative affect	.23**	.48***	.61***	.46***	.09	−.03	.57***	.22*	.13	—	−.21***
11. T2 positive affect	.07	−.15	−.11	−.08	.36***	.30**	.16	.48***	.52***	.05	—

Note. Between-persons model correlations are below the diagonal; within-person model correlations are above the diagonal. T1 = Time 1; T2 = Time 2; perc. = perceived; prob.-focused = problem-focused; pos. = positive.
* $p < .05$. ** $p < .01$. *** $p < .001$.

SRMR (within/between) = .048/.098. The within-person level-specific fit was acceptable, $\chi^2(154) = 630.25$, $p < .001$; TLI = .907; CFI = .971; RMSEA = .034; and SRMR = .048. The between-persons level-specific fit was excellent according to three out of four indices, $\chi^2(263) = 559.826$, $p < .001$; TLI = .966; CFI = .982; RMSEA = .020, with SRMR = .097 somewhat lower than desirable. It is not uncommon to obtain one fit index that does not seem to agree with the other fit indices, given that they all assess fit in slightly different ways. SRMR is based on standardized covariance residuals, and does not consider at all how well the means are reproduced. Inspection of the standardized covariance residuals suggested that the mental disengagement scale had five relatively high standardized covariance residuals with other variables (ranging from .29 to .42) in the between-persons model, which contributed to the somewhat high but still acceptable SRMR.

Figure 2 presents the standardized parameter estimates of the final MSEM model. For the within-person model, significant ($p < .001$) proportions of variance in avoidant coping ($R^2 = .08$), event stress ($R^2 = .12$), positive reinterpretation ($R^2 = .04$), perceived control ($R^2 = .06$), problem-focused coping ($R^2 = .29$), negative affect ($R^2 = .27$), and positive affect ($R^2 = .14$) were explained. For the between-persons model, significant proportions of variance in avoidant coping ($R^2 = .30$, $p < .001$), event stress ($R^2 = .15$, $p < .01$), problem-focused coping ($R^2 = .14$, $p < .01$), negative affect ($R^2 = .53$, $p < .001$), and positive affect ($R^2 = .33$, $p < .001$) were explained, whereas a nonsignificant proportion of variance in perceived social support ($R^2 = .03$) was explained. In order to examine the hypothesis that avoidant coping and event stress would fully explain the relation between Time 1 SC and Time 2 average daily negative affect, we tested the significance of the relation between SC and negative affect, controlling for event stress and avoidant coping, and found the path ($\beta = .16$) to be nonsignificant ($p > .05$).

The Monte Carlo method (see MacKinnon, Lockwood, & Williams, 2004; Preacher & Selig, 2012) was used to test the significance of the specific indirect effects in the MSEM model. We used Selig and Preacher's (2008) web-based utility to generate and run R code for simulating the sampling distribution of an indirect effect. For each indirect effect, unstandardized estimates of each path, their standard errors, a 95% confidence level, and 20,000 values to simulate were entered for computing confidence intervals (CIs). If the 95% CI for a specific indirect effect does not include zero, this indicates that the specific indirect effect is significant at $\alpha = .05$.

Table 4 shows the within-person indirect effects and their 95% CIs of the three-variable (predictor → single mediator → affect) and four-variable (predictor → two sequential mediators → affect) trigger coping action patterns capturing variation in daily negative affect and positive affect. Table 4 and Figure 2 (top panel) show disengagement trigger patterns (a_W-h_W) consisting of indirect effects leading to within-person changes in negative affect and positive affect via one mediator or two sequential mediators. First, there were six significant indirect effects of disengagement triggers (i.e., perceived criticism, lower perceived control, avoidant coping, event stress) on within-person variations in daily negative affect. Second, there were four significant indirect inverse effects of disengagement variables on within-person changes in daily positive affect. Table 4 and Figure 2 (top panel) also show a set of engagement trigger patterns (i_W-r_W) consisting of indirect effects leading to within-person variations in daily positive affect via one or two sequential mediators. There were nine significant indirect effects of engagement triggers (i.e., perceived social support, positive reinterpretation, perceived control, problem-focused coping) on within-person changes in daily positive affect.

Table 4 also shows the between-persons indirect effects and their 95% CIs of the three-variable and four-variable maintenance coping action patterns leading from SC and PS to average daily negative affect and positive affect, respectively. As shown in the set of disengagement maintenance patterns (a_B-f_B) of the between-persons model (see Table 4 and Figure 2 bottom panel), Time 1 SC was indirectly related to Time 2 average daily negative affect through (a) average daily avoidant coping as a single mediator (a_Bd_B), (b) average daily event stress as a single mediator (b_Be_B), and (c) avoidant coping and event stress as two sequential mediators ($a_Bc_Be_B$). In addition, Time 1 SC had an indirect inverse effect on Time 2 average daily positive affect through (a) event stress as a single mediator (b_Bf_B) and (b) avoidant coping and event stress as two sequential mediators ($a_Bc_Bf_B$). In parallel, as shown in the engagement maintenance patterns (g_B-k_B) of the between-persons model (see Table 4 and Figure 2 bottom panel), Time 1 SC had an indirect inverse effect on Time 2 average daily

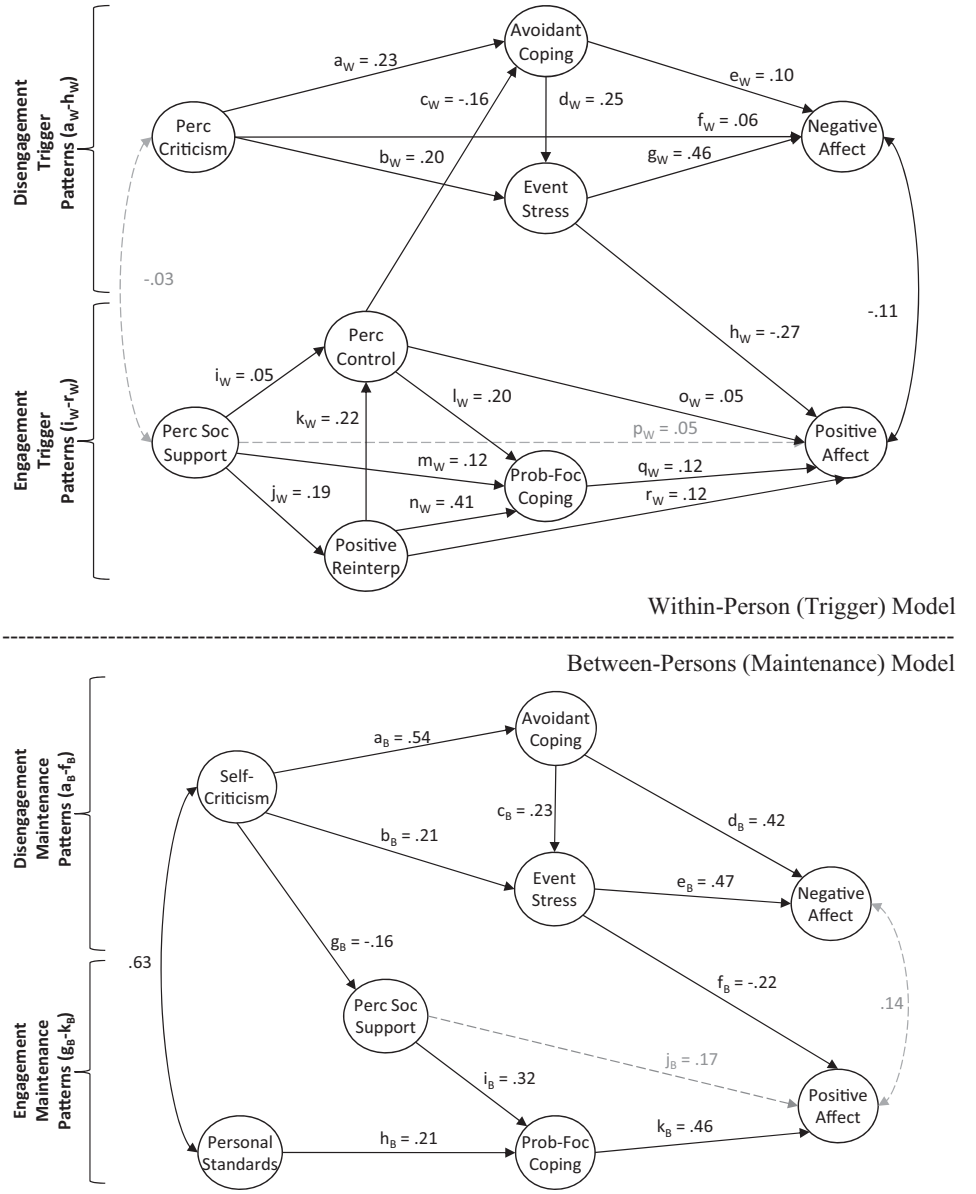

Figure 2. Standardized parameter estimates for the final within-person (top panel) and between-persons mediation models (bottom panel). Significant estimates are shown in solid black and nonsignificant estimates ($p > .05$) in dashed gray. Perc = Perceived; Soc = Social; Reinterp = Reinterpretation; Prob-Foc = Problem-Focused.

positive affect through lower Time 2 average daily perceived social support and problem-focused coping as two sequential mediators ($g_B i_B k_B$). In contrast, Time 1 PS was indirectly related to Time 2 average daily positive affect through the mediator of Time 2 problem-focused coping ($h_B k_B$).

Alternative MSEM Models

Alternative directions of structural paths. Although Figure 2 represents one plausible representation of the data, it is important to acknowledge the existence of other theoretically plausible alternative explanatory models of triggers and maintenance of negative affect and positive affect (see Aldwin, 2007; Lazarus, 2000). First, we tested an alternative model in which the paths from avoidant coping to event stress in the initial hypothesized within-person (d_W) and between-persons (c_B) models (see Figure 1) were reversed in direction leading from event stress to avoidant coping. As could be expected, the alternative model had an essentially identical fit to the data as our target model, but was a worse fit to the data than the originally hypothesized model, according to the higher Akaike's information criterion (AIC; 181925.93) and Bayesian information criterion (BIC; 182788.88) values relative to the AIC (181920.52) and BIC (182783.47) values of the originally hypothesized model. Second, we tested an alternative model in

Table 4
Significant Total Indirect Effects Using Monte Carlo Confidence Intervals

Indirect effect	Stnd. estimate (β)	Unstnd. estimate (*b*)	95% CI for mean estimate[a]
Within-person model			
Disengagement trigger patterns (a_W-h_W)			
a_We_W: PCriticism → AvCope → NA	.023	.027	[.008, .050*]
$a_Wd_Wg_W$: PCriticism → AvCope → EvStress → NA	.026	.030	[.018, .046*]
$a_Wd_Wh_W$: PCriticism → AvCope → EvStress → PA	−.015	−.016	[−.025, −.009*]
b_Wg_W: PCriticism → EvStress → NA	.093	.109	[.078, .143*]
b_Wh_W: PCriticism → EvStress → PA	−.055	−.059	[−.079, −.041*]
c_We_W: PControl → AvCope → NA	−.017	−.019	[−.038, −.005*]
$c_Wd_Wg_W$: PControl → AvCope → EvStress → NA	−.019	−.021	[−.035, −.010*]
$c_Wd_Wh_W$: PControl → AvCope → EvStress → PA	.011	.011	[.005, .019*]
d_Wg_W: AvCope → EvStress → NA	.114	.128	[.084, .175*]
d_Wh_W: AvCope → EvStress → PA	−.067	−.069	[−.097, −.044*]
Engagement trigger patterns (i_W-r_W)			
i_Wo_W: PSocSupp → PControl → PA	.003	.003	[−.0001, .008]
$i_Wl_Wq_W$: PSocSupp → PControl → PFCope → PA	.004	.001	[.0001, .003*]
j_Wr_W: PSocSupp → PosReint → PA	.023	.024	[.013, .038*]
$j_Wk_Wo_W$: PSocSupp → PosReint → PControl → PA	.002	.002	[.0001, .005*]
$j_Wn_Wq_W$: PSocSupp → PosReint → PFCope → PA	.009	.010	[.004, .017*]
k_Wo_W: PosReint → PControl → PA	.011	.012	[.007, .024*]
$k_Wl_Wq_W$: PosReint → PControl → PFCope → PA	.005	.005	[.002, .010*]
l_Wq_W: PControl → PFCope → PA	.023	.024	[.009, .041*]
m_Wq_W: PSocSupp → PFCope → PA	.014	.015	[.005, .027*]
n_Wq_W: PosReint → PFCope → PA	.047	.050	[.020, .082*]
Between-persons model			
Disengagement maintenance patterns (a_B-f_B)			
a_Bd_B: SlfCriticism → AvCope → NA	.229	.334	[.146, .564*]
$a_Bc_Be_B$: SlfCriticism → AvCope → EvStress → NA	.058	.086	[.009, .188*]
$a_Bc_Bf_B$: SlfCriticism → AvCope → EvStress → PA	−.028	−.034	[−.087, −.002*]
b_Be_B: SlfCriticism → EvStress → NA	.099	.145	[.014, .300*]
b_Bf_B: SlfCriticism → EvStress → PA	−.047	−.058	[−.141, −.002*]
Engagement maintenance patterns (g_B-k_B)			
g_Bj_B: SlfCriticism → PSocSupp → PA	−.027	−.032	[−.104, .015]
$g_Bi_Bk_B$: SlfCriticism → PSocSupp → PFCope → PA	−.024	−.029	[−.072, .001*]
h_Bk_B: Personal Standards → PFCope → PA	.095	.126	[.025, .233*]

Note. Stnd. = Standardized; Unstnd. = Unstandardized; CI = confidence interval; PCriticism = Perceived criticism; AvCope = Avoidant coping; EvStress = Event stress; NA = Negative affect; PA = Positive affect; PControl = Perceived control; PSocSupp = Perceived social support; PFCope = Problem-focused coping; PosReint = Positive reinterpretation; SlfCriticism = Self-criticism.
[a] These values are based on the unstandardized path coefficients.
* 95% confidence interval excludes zero.

which the five paths (a_W, c_W, j_W, l_W, m_W) from appraisals of coping resources (i.e., perceived criticism, perceived control, perceived social support) to coping responses (i.e., avoidant coping, problem-focused coping, positive reinterpretation) in the initial hypothesized within-person model (see Figure 1) were reversed in direction (see Skinner et al., 2003). As could be expected, this alternative model had an essentially identical fit to the data as our target model, but was a worse fit to the data than the originally hypothesized model, according to the higher AIC (181936.50) and BIC (182799.45) values.

More complex between-persons maintenance model. We also examined a more complex between-persons MSEM maintenance model in which perceived criticism, perceived control, and positive reinterpretation were included, with the hypothesized paths between these three variables and the other daily variables the same as in the within-person model (see Figure 1). On the basis of Dunkley et al.'s (2000, 2003) theoretical model and findings along with further theoretical considerations discussed above, three paths were added to test hypothesized links from Time 1 SC to Time 2 average daily perceived criticism and lower perceived control, and from Time 1 PS to Time 2 average daily positive reinterpretation.

The more complex between-persons model resulted in an acceptable fit. Time 1 SC was indirectly related to Time 2 negative affect through perceived criticism, avoidant coping, and event stress. However, perceived criticism was not directly related to negative affect (β = −.02, *ns*), which indicates that perceived criticism is a secondary- not primary-mediating process between SC and the maintenance of negative affect. Perceived control did not mediate the relation between SC and negative affect, and was not related to positive affect (β = .03, *ns*). As could be expected given the strong zero-order correlations between positive reinterpretation and problem-focused coping and positive affect (see Table 2), problem-focused coping was no longer significantly related to positive affect (β = .19, *ns*) once positive reinterpretation was controlled for. However, the more complex model (.344)

and hypothesized model (.330) accounted for essentially equivalent amounts of variance in positive affect. Further, although Time 1 PS was indirectly related to Time 2 positive affect through positive reinterpretation in this more complex model, the indirect relation between PS and positive affect through problem-focused coping in the hypothesized model more closely aligns with previous theory and empirical findings. Overall, although testing the more complex between-persons model suggested that perceived criticism and positive reinterpretation play an important role in the maintenance of daily affect, the simpler hypothesized between-persons model was preferred because it was essentially equal to the task of explaining the links between SC and PS dimensions and the maintenance of daily affect and is easier to interpret, remember, replicate, and generalize.

Discussion

The present study was the first to use a prospective, daily diary design and MSEM to advance complex explanatory conceptualizations that can be used to promote a shared understanding between therapists and clients of how appraisals and coping strategies trigger and maintain negative affect and (low) positive affect in daily life. Our MSEM findings demonstrated cross-sectional explanatory conceptualizations of trigger and maintenance coping action patterns that emerge across numerous stressors: (a) complex disengagement trigger patterns consisting of several distinct appraisals (e.g., event stress) and coping strategies (e.g., avoidant coping) that commonly operate together when the typical individual experiences daily increases in negative affect and drops in positive affect; and (b) complex disengagement maintenance patterns consisting of different appraisal and coping maintenance factors that, in combination, can explain why individuals with higher SC have persistent negative affect as well as low positive mood 6 months later. Further, a unique strength of our study was demonstrating, in parallel, complex engagement patterns (triggers and maintenance) composed of distinct appraisals (e.g., perceived social support) and coping strategies (e.g., problem-focused coping) that are linked to compensatory experiences of daily positive mood.

Common Triggers of Daily Affect: Disengagement and Engagement Coping Action Patterns

The MSEM within-person model results articulated complex disengagement and engagement patterns that generally apply across a wide variety of daily stressors (i.e., achievement, interpersonal) to explain how affect might be triggered for the typical individual. The empirically supported trigger processes of the present study can be used to normalize and validate the experience of many clients whose affect activation patterns might "fit" with these explanatory conceptualizations (cf. Kuyken et al., 2009). Our hypothesized within-person model (see Figure 2) was a better fit to the data than alternative models with different specified directions between appraisals and coping. Nevertheless, the hypothesized and alternative models all fit the data well, which indicates that searching for the "true" causal order might be misguided because of differences across stressors and individuals and the ubiquity of feedback processes and reciprocal causality (see Aldwin, 2007; Lazarus, 2000). Rather, it is of greater importance to establish clearly which are the important components and to map out the manner in which transactions occur among several distinguishable components across many diverse situations in daily life. In keeping with CBT, explanatory conceptualizations are meant to be used *collaboratively* and *flexibly* by therapists with their clients in that the order in which elements are identified can vary according to which parts of experiences are most salient to the client. Moreover, therapists are encouraged to adopt a "two heads are better than one" approach to conceptualization with their clients in order to promote client interest and engagement, which is viewed as a prerequisite for change (see Kuyken et al., 2009; Miller & Rollnick, 2013).

Disengagement trigger patterns. The MSEM within-person model demonstrated support for several simple (direct) and complex (indirect) disengagement trigger patterns across many daily stressful situations that independently accounted for increases in daily negative affect and decreases in positive affect for the typical individual. As shown in Figure 2, the results supported several disengagement processes (i.e., avoidant coping [e_W], perceived criticism [f_W], event stress [g_W]) across many stressors that had unique, direct associations with within-person increases in daily negative affect, consistent with previous findings (Dunkley et al., 2003). Most importantly, the MSEM disengagement within-person findings address a critical barrier to narrowing the gap between research and theory (e.g., Carver & Connor-Smith, 2010; Dunkley et al., 2003; Holahan et al., 2005) and clinical work (see Kuyken et al., 2009) by synthesizing or "connecting the dots" among several distinct appraisal (perceived criticism, lower perceived control, stressfulness), coping (avoidant coping), and affect (negative, positive) processes. In general, across many stressors, when the typical individual perceives more criticism from others or less control than usual, he or she uses more avoidant coping and experiences higher event stressfulness than usual, and this is connected to daily increases in negative affect as well as decreases in positive affect (see Figure 2 and Table 4, a_W-h_W).

Engagement trigger patterns. The MSEM within-person model also advances our understanding of engagement processes in operation when positive affect increases in order to learn how the typical individual's strengths protect him or her during challenging circumstances of everyday life. Our results demonstrated support for several simple (direct) and complex (indirect) engagement trigger patterns that account for increases in daily positive affect for the typical individual. As exhibited in Figure 2, the findings supported several engagement processes (i.e., perceived control [o_W], problem-focused coping [q_W], positive reinterpretation [r_W]) across many stressors that had unique, direct associations with within-person increases in daily positive affect, in keeping with previous findings (Dunkley et al., 2003). Most relevantly, the MSEM engagement within-person findings represent a substantial advance toward synthesizing research with theory and clinical work (Carver et al., 1989; DeLongis & Holtzman, 2005; Folkman & Moskowitz, 2000, 2004; Holahan et al., 1997; Lazarus, 2000) by integrating several distinct engagement appraisal (perceived social support, perceived control), coping (positive reinterpretation, problem-focused coping), and positive affect processes. In general, across several stressors, when the typical individual perceives that others are more available than usual to provide assistance with stressors, he or she construes daily stressors in more positive terms than usual, perceives more control, and en-

gages in more active attempts to remove or circumvent stressors (i.e., problem-focused coping) than usual, and this is connected to daily increases in positive affect (see Figure 2 and Table 4, i_W-r_W).

In summary, the present findings underscore that both simple and complex explanatory conceptualizations are needed to understand what triggers distress and resilience for the typical client, particularly when changes in mood seem to the client to come out of the blue (Kuyken et al., 2009). Our results suggest that relying on simple explanatory conceptualizations that emphasize certain components over others (e.g., behavioral vs. cognitive vs. interpersonal; distress vs. resilience) might arbitrarily "cut off" important aspects of clients' presenting issues.

Maintenance of Daily Affect 6 Months Later: The Role of Perfectionism Dimensions and Disengagement and Engagement Coping Action Patterns

The between-persons maintenance model findings of the present study also advance complex explanatory conceptualizations of the role of disengagement and engagement maintenance factors in explaining the differential effects of SC and PS perfectionism dimensions on the maintenance of daily negative affect and (low) positive affect. Moreover, the present study addressed a significant gap in the personality vulnerability literature (see Carver & Connor-Smith, 2010) by demonstrating the adverse longer term impact of perfectionism on more reliable estimates of average daily appraisal and coping factors over a considerably longer period of time (e.g., 6 months) than previously examined (e.g., Dunkley et al., 2003).

Disengagement maintenance patterns. The MSEM between-persons model addressed why the heightened negative affect of individuals with higher SC often does not go away over time. As shown in Figure 2 and Table 4 (a_B-f_B), the relation between SC and daily negative affect maintenance 6 months later was mediated by daily avoidant coping and event stress maintenance factors, with avoidant coping related to negative affect directly and negative and positive affect indirectly through its association with event stress. Thus, these findings corroborate Dunkley et al.'s (2000, 2003) model that suggests that individuals with higher SC tend to avoid many different daily stressors (e.g., achievement, interpersonal), which makes their problems worse and keeps their mood down several months later.

Engagement maintenance patterns. Whereas Dunkley et al. (2003) found SC to be negatively related to engagement tendencies in university students, SC had only a weak negative association with perceived social support and was unrelated to perceived control and positive affect in the present study of community adults (see Table 3). Thus, whereas the relations between SC and disengagement variables (e.g., avoidant coping) and negative affect were very similar across samples, these results indicate that the negative relation between SC and engagement capacities and positive affect might be weaker for community adults than it is for university students. Future research is needed to examine the replicability of this finding. Nevertheless, as shown in Figure 2 and Table 4 ($g_B i_B k_B$), the MSEM between-persons model findings indicated that SC had an indirect association with the maintenance of lower positive affect 6 months later through lower perceived social support and problem-focused coping maintenance. Further, the adaptive potential of PS was exhibited by an indirect relation with positive affect through higher average daily problem-focused coping ($h_B k_B$). Thus, although PS might be associated with daily stress, the negative impact might be offset to some degree by the tendency of these individuals to engage in problem-focused coping (see Dunkley et al., 2000).

Translating Complex Explanatory Conceptualizations Into Clinical Practice and Everyday Life

It is important to consider the practical implications of our results, particularly given the growing stress-induced public health crisis (American Psychological Association, 2012) and suggestions that coping research has offered very little to help individuals manage stressful problems and distressing emotions in the context of everyday life (see Aldwin, 2007; Coyne & Racioppo, 2000; Somerfield & McCrae, 2000).

Broadly applicable clinical implications for the typical individual. Our within-person model results contribute substantively to a generic understanding of triggers of daily affect, which provides an empirically informed rationale to select cognitive, behavioral, and interpersonal interventions from within a broad pool of CBT treatment methods (e.g., Beck, 1995; Martell, Addis, & Jacobson, 2001). The trigger model findings suggest several pathways for change and demonstrate a flexible response system in that, when one or more disengagement or engagement processes are changed, good outcomes are likely to be achieved (e.g., negative affect decreases, positive affect increases) in many different daily stressful situations for the typical individual (see Skinner et al., 2003).

Specifically, to decrease daily negative affect and increase daily positive affect for the typical client, cognitive strategies might be used to modify harm appraisals, such as event stress (e.g., Beck, 1995). Behavioral activation methods can be used to specifically target avoidant coping and promote an increase in pleasurable and rewarding activities, which might decrease the time available for rumination about stress (e.g., Martell et al., 2001). At the same time, our findings suggest that avoidant coping might also be decreased for the typical client by targeting helplessness appraisals (i.e., perceived criticism, lower perceived control; Dunkley et al., 2003). The engagement trigger patterns supported in the present study help bring alternative adaptive patterns into focus for clients and highlight specific intervention choice points in order to improve daily mood for the typical client. Perceived control can be increased by breaking problems into smaller, more manageable parts (e.g., Kuyken et al., 2009). When daily stressful situations seem more uncontrollable than usual, targeting the self by attempting to implement emotion-focused coping responses (e.g., positive reinterpretation), or targeting the context by trying to discover available interpersonal contingencies (e.g., perceived social support) might be healthy alternatives to avoidant coping and rigid perseveration that exacerbates stressors (e.g., Skinner et al., 2003). When others are perceived to be more critical than usual, the typical client might focus on improving social competence (e.g., positive expressions to others, active listening, responding to criticism) in an effort to facilitate more positive supportive relations (e.g., Brand, Lakey, & Berman, 1995) as a constructive alternative to concealing problems by avoidance. Further, problem-focused coping efforts might be bolstered not only by behavioral skills-building strategies (e.g., Martell et al., 2001) but also by enhancing

perceived social support, positive reinterpretation, and perceived control.

Personalized clinical implications for individuals with higher SC perfectionism. In considering the role of clients' perfectionism in the maintenance of daily mood problems, the between-persons results of the present study further suggest that clinicians should focus more closely on self-critical evaluative tendencies than on high personal standards (e.g., Dunkley, Blankstein, et al., 2006). As SC perfectionism has been demonstrated to have a negative impact on the treatment of psychological symptoms (see Blatt & Zuroff, 2005; Egan et al., 2011; Kannan & Levitt, 2013), it is important to consider what might be important focal points for more effective personalized prevention/intervention efforts for these individuals. The disengagement maintenance patterns demonstrated in the present and previous studies suggest that interventions that aim to overcome maintenance processes of avoidant coping and event stress may be most important for reducing the constant negative affect of individuals with higher SC (Dunkley et al., 2000, 2003). Drawing from empirical findings (e.g., Dunkley et al., 2003) and the psychotherapy literature (see Kannan & Levitt, 2013; Kelly & Zuroff, 2013), clinicians might reduce self-critical clients' avoidant coping and perceptions of greater stress with many different stressors by helping these individuals move away from the tendency to engage in destructive self-blame across many stressful situations to more constructive self-blame and ways of typically relating to themselves (e.g., from self-attacking to self-nurturing). Helping self-critical clients develop a more compassionate view of themselves might also decrease perceived criticism and increase perceived social support, in conjunction with other interventions that help these individuals reconceptualize relationships with critical parents, modify negative biases in interpreting social behaviors, and improve social competence (see Brand et al., 1995; Dunkley et al., 2000). This, in turn, might help individuals with higher SC change their focus from avoidant coping to an emphasis on problem-focused coping in order to build personal resources of mastery and resilience (see Dunkley et al., 2000, 2003).

There were limitations of the present study and areas that warrant attention in future research. First, we assessed stress, appraisals, and coping only once per day and, therefore, were unable to capture the dynamics of appraisal and coping processes as they are experienced during the day (e.g., Lazarus & Folkman, 1984). Repeated within-day assessments of stress, appraisals, coping, and affect are needed to examine whether the complex explanatory conceptualizations of triggers supported in the present study are also relevant to within-day changes in affect for the typical individual. Second, cognitive appraisals are likely very rapid and require more frequent measurements than are perhaps feasible with diary methodologies. Cognitive priming studies, in which individuals are exposed to experimental stimuli and their subsequent cognitive reactions are examined, would be useful to better inspect appraisals as stressful events unfold. Third, as the disengagement–engagement distinction organized around concerns of competence does not fully represent the structure of coping, it is important to examine coping action patterns that are organized around other fundamental classes of concerns (e.g., relatedness, autonomy; see Skinner et al., 2003). Fourth, as our study relied on self-report measures, future studies might supplement self-report measures with informant reports or assessments of observable behaviors (e.g., coping). Finally, the present results are based on an adult community population primarily composed of women, so their generalizability to larger samples of men as well as to other nonclinical (e.g., university students) and clinical populations needs to be examined.

Conclusion

The present findings demonstrate the promise of using daily diary methodologies and MSEM to narrow the gap between research and clinical work by advancing complex explanatory conceptualizations that can help therapists and clients make sense of coping action patterns that commonly trigger mood changes, and maintain mood problems in some individuals (e.g., those with higher SC). Specifically, within-person and between-persons tests of cross-sectional explanatory conceptualizations demonstrated (a) complex disengagement patterns that shed light on what commonly triggers daily within-person increases in negative affect and drops in positive affect for the typical individual and (b complex disengagement maintenance patterns that can help explain why depressive mood is still not going away several months later for individuals with higher self-critical perfectionism. In parallel, our cross-sectional explanatory conceptualizations brought alternative adaptive engagement patterns (triggers and maintenance) into focus to orient therapists and researchers toward obtaining a more holistic view of clients.

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