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# Social, Achievement, and Control Dimensions of Personality-Life Event Vulnerability to Depression

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Running Head: Social, Achievement, & Control Dimensions

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**Abstract**

This study investigated whether Sociotropy and the subscales of Autonomy (i.e.,

Perfectionistic/Self-critical, Need for Control, and Defensive Separation) would show

differential patterns of vulnerability to dysphoria in both retrospective and prospective

designs. Each of these scales showed a predicted pattern of association with life goals

and impact ratings for negative events in a retrospective design. In a prospective design,

the scales showed differential associations with goal obtainment and cognitive-affective

responses to life events but did not predict follow-up dysphoria independently of baseline

dysphoria. These results are discussed in terms of the multi-dimensionality of

personality vulnerability and depressogenic negative life events along social,

achievement, and control dimensions.


**Keywords:** Sociotropy, Autonomy, Dysphoria, Life events, Congruency

**Social, Achievement, and Control Dimensions of**

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Beck's (1983) diathesis-stress congruency model describes two personality

dimensions that interact with negative life experiences to determine vulnerability to

depression.  One of these dimensions is sociotropy (or social dependency), defined as

one's level of personal "investment in positive interchange with others" (Beck, 1983, p.

272).  However, it is the obsessive quality of this interest that creates a depressive

vulnerability factor according to Beck's model.  For example, sociotropic individuals are

characterized by their frequent engagement in dependency-related behaviours, such as

incessantly seeking other's closeness, reassurance, and approval. Sociotropic individuals

are consequently held to be vulnerable to depression following social criticism and

rejection.  More specifically, sociotropic individuals are believed to be at increased risk

for experiencing dysphoria characterized by cognitive themes of loss, isolation,

abandonment, and undesirability.

Autonomy (or individuality) refers to a person's degree of "investment in

preserving and increasing independence, mobility, personal rights, and freedom of action

and expression" (Beck, 1983, p. 272).  Once again, however, theory specifies that it is

primarily when individual goals are pursued with an obsessive style that vulnerability for

depression may be conferred.  For example, autonomous individuals are thought to

unduly defend themselves against external encroachment, restraints, and social

interference, and may consequently be perceived by others as dogmatic,

uncompromising, self-demanding, perfectionistic, and aloof.  Therefore autonomous

individuals are "hyperreactive to situations that impede their specific goal-seeking

behaviour" (Beck, 1983, p. 278) and are thought to be more likely to react to a restriction of their independence with irritability and hostility in comparison with depressive melancholy or despair. In contrast, life events that are directly attributed to personal failure are thought to culminate in self-critical cognitions such as incompetence, worthlessness, and defeat. Finally, autonomous individuals may often display a lack of empathy or sensitivity to others' needs and a relative disinterest in social exchange.

Research has generally supported an association between sociotropy, autonomy, and the experience of depression (Neitzel and Harris, 1990). Conversely, the literature has been less supportive of the specific predictions of congruence theory, especially in regard to autonomy (Coyne & Whiffen, 1995). Beck's (1983) congruence theory posits that sociotropic individuals should be more vulnerable to depression following negative interpersonal events than failure events, and posits the converse pattern for autonomous individuals. Although several studies have found that the effect of negative social events on depression is moderated by individuals' level of sociotropy, specificity to negative interpersonal events has often not been obtained (e.g., Robins & Block, 1988; Robins, Hayes, Block, Kramer, & Villena, 1995). In addition, several studies have failed to demonstrate significant moderation of the association between failure-related experiences and depression by autonomy (Coyne & Whiffen, 1995).

Theoretical advances have attempted to account for this pattern of findings, focusing either on an improved understanding of the triggering events or the personality traits themselves. The former line of thought has challenged the validity of previous attempts to nominally classify negative life events into social and achievement-related categories, arguing instead that many negative life events may entail consequences for

self-worth in both the social and achievement realms (e.g., Abramson, Alloy, & Hogan,
1997; Frewen & Dozois, 2004; Kwon & Whisman, 1998).  Moreover, researchers have
suggested that an individuals' personality orientation may partially determine how
negative life events are experienced (e.g., Abramson et al., 1997; Clark, Beck, & Brown,
1992; Kwon & Whisman, 1998; Lakey & Ross, 1994).  For example, given that
sociotropic individuals may overvalue others' opinions, they may be more likely to focus
on the negative social consequences of academic or occupation-related failures relative to
the effects of these events for personal achievement.  Thus researchers have called for a
greater research focus on understanding how specific negative life events can affect
individuals with differing personality styles.  In addition, researchers have argued for an
increased focus on understanding the acute cognitive responses of individuals to negative
life events, which may be more pronounced than the effects of negative events on distal
depressive symptoms (Santor, 2003).

A second important theoretical refinement has involved the recognition of the
multidimensional nature of these personality constructs, especially with regard to
autonomy.  For example, both factor analyses of autonomy measures (e.g., Bagby,
Parker, Joffe, Schuller, & Gilschrist, 1998; Bieling, Beck, & Brown, 2000; Clark, Steer,
Haslam, Beck, & Brown, 1997; Robins et al., 1994; Sato & McCann, 1997) and
convergent correlations of the factors with other personality traits (Alden & Bieling,
1996; Bagby & Rector, 1998; Bagby et al., 2001; Cappeliez, 1993; Dunkley, Blankstein,
& Flett, 1997; Gilbert & Reynolds, 1990; Ouimette, Klein, Anderson, Riso, & Lizardi,
1994; Mongrain, 1993; Zuroff, 1994) support the contention that the autonomous
dimension may be further sub-divided into social (withdrawal, disinterest), control

(dogmatic, authoritarian), and achievement-relevant (perfectionistic striving, self-critical) factors. Recently a number of researchers have began to utilize these distinctions in tests of depressive vulnerability, and the results have led some investigators to propose that the interpersonal-control aspects of autonomy may be the "key feature of the autonomous cognitive-personality style" (Mazure, Raghavan, Maciejewski, Jacobs, & Bruce, 2001, p. 222; Little & Garber, 2000; Nelson, Hammen, Daley, Burge, & Davila, 2001). However, previous tests of the congruence hypothesis have focused exclusively on autonomous individuals' responses to failure-related experiences (e.g., job loss) as opposed to events that restrict independence without explicitly involving failure (e.g., low job mobility).

The lack of focused investigation of autonomous individuals' responses to independence-restrictive events is not entirely consistent with Beck's (1983) original proposal that autonomous individuals are vulnerable to hostile affect when their freedom for goal pursuit is obstructed. The relevance of this point is further highlighted in considering that the relationship between perfectionistic/self-critical traits and failure events may be more direct (or "personality congruent") than is the relationship between the social or control dimensions of autonomy and failure-related experiences (Clark et al., 1992). Indeed studies that have specifically tested relationships between perfectionism and failure-related experiences have consistently demonstrated an association with depression relevant constructs (Shafran & Mansell, 2001).

In summary, the perfectionistic/self-critical and control-needs components of autonomy may be distinctive personality constructs that serve as vulnerabilities for depression in the context of different types of negative life events. Whereas perfectionism may increase susceptibility to feelings of worthlessness and incompetence

following failure-related experiences, high control-needs may increase irritability/hostility following events that restrict freedom and mastery over environmental circumstances (Little & Garber, 2000; Raghavan, Le, & Berenbaum, 2002).

This study aimed to further investigate the roles of personality vulnerability factors on both proximal and distal depressive responses to negative life events. Specifically, this study investigated whether Perfectionistic/Self-critical, Need for Control, and Defensive Separation sub-factors of autonomy could be differentiated from each other, and from that of the sociotropic dimension, in relation to depressive responses to specific classes of stressors and in the setting of distinctive personality-congruent goals. We conducted a retrospective test of the congruency hypothesis at the beginning of university students' first academic year and measured each student's social, achievement, and autonomous-independence goals. At the end of the academic year we then assessed the extent to which these students had met their goals in each area and determined which negative life events they had experienced in relation to levels of dysphoria and overall adaptation to university life. This study also investigated aspects of the symptom-specificity hypothesis within individuals' acute cognitive/affective responses to negative life events. Sociotropic personality was predicted to correlate with feelings of loss and abandonment following negative social events. In comparison, autonomous personality was predicted to correlate with levels of irritability and hostility in situations where independence was restricted, and with levels of worthlessness and incompetence following the experience of personal failure.

Method

*Participants*

First year undergraduate students ($n$ = 188), enrolled in introductory psychology courses at the University of Western Ontario, participated in the initial study for course credit. Seventy-six percent of the original sample was female, and the same percentage reported that they were Caucasian in ethnic origin, with the mean age of participants being 18.51 (SD = 0.94) years. One-hundred-and-two (54.2%) of these participants also completed the follow-up portion of the study.

*Materials*

*Personal Style Inventory-II (PSI-II).* The PSI-II (Robins et al., 1994) is a 48-item measure of the personality dimensions Sociotropy and Autonomy (24 items per scale). The Sociotropy scale is composed of three sub-scales (Pleasing Others, Dependency, and Concern Over What Others Think), as is the Autonomy scale (Perfectionism/Self-criticism, Need for Control, and Defensive Separation). Respondents rate their agreement with statements relating to these dimensions on six-point scales scored from 1 (strongly disagree) to 6 (strongly disagree). Robins et al. (1994) reported good psychometric validity with undergraduates. The Autonomy subscales were scored separately in this study (as per the stated hypotheses) but we used the full-scale score for Sociotropy. The internal consistency reliabilities and intraclass correlation coefficients for the Sociotropy full-scale and Autonomy sub-scales in the current sample were: Sociotropy, $\alpha$ = .87, $r$ = .22; Perfectionism/Self-criticism, 4 items, $\alpha$ = .62, $r$ = .31; Need for Control, 8 items, $\alpha$ = .68, $r$ = .23; and Defensive Separation, 12 items, $\alpha$ = .78, $r$ = .24.

*Beck Depression Inventory-II (BDI-II).* The BDI-II (Beck, Steer, & Brown, 1996) consists of 21-items presented in a four-point multiple-choice format. Individual items are scored between 0 and 3, with higher scores reflecting increasingly intense depressive symptoms. The BDI-II has demonstrated good psychometric characteristics in a large undergraduate sample (Dozois, Dobson, & Ahnberg, 1998). The internal consistency reliability for the BDI-II in the current sample was $\alpha = .90$, and the intraclass correlation coefficient was $r = .32$.

*College Adaptation Questionnaire (CAQ).* The CAQ (van Rooijen, 1986) is an 18-item measure of the extent to which an individual has adjusted to university life. Representative items include "I find it difficult to adjust to student life" and "I am very satisfied with the course of my studies". This measure was used in a previous study of the effects of dysfunctional attitudes on the psychosocial adjustment to university life (Halamandaris & Power, 1997) and has demonstrated good psychometric validity (van Rooijen, 1986). The alpha coefficient for the present study was .92, and the intraclass correlation coefficient was $r = .40$.

*University Goals.* We developed five goal statements for each of the social, achievement, and independence themes. At the beginning of the school year, participants rated how important each statement was for them on a six-point scale ranging from "Not at all Important" to "Extremely Important". At the end of the school year, these items were re-rated for how well participants had met their goals using a six-point scale anchored by "Not at all" to "Extremely Well". Example items included: Social ("To be popular and well liked", "To find a companion; someone to depend on"), Achievement ("To maintain a very high academic standing", "To meet or exceed own and others'

academic expectations"), and Independence ("To be able to do or have what you want, when you want", "To avoid distractions and annoyances while at university"). The internal consistency reliabilities and intraclass correlation coefficients for the goal importance scales were: Social, $\alpha = .73$, $r = .36$, Achievement, $\alpha = .80$, $r = .48$, and Independence, $\alpha = .72$, $r = .36$.

*List of Negative Life-events.* This measure consisted of 47 negative life-events derived from the Life Events of College Students checklist (Sandler & Lakey, 1982) and the Inventory of College Students' Recent Life Experiences (Kohn, Lafreniere, & Gurevich, 1990) and divided into social (n = 21), failure-related (n = 16), and independence-restrictive (n = 10) categories. A number of the independence-restrictive life events, not contained in the previous instruments, were written for the present study based on Beck's (1983) definition of autonomy and the autonomy scale items of the PSI-II (Robins et al., 1994). Examples of the negative social, failure-related, and independence-restrictive negative events were: Negative Social ("Termination of intimate relationship", "Found out friend had a negative belief or spread gossip about you"), Failure-related ("Difficulty meeting your own academic standards", "Withdrawal from a class because of poor performance") and Independence-restrictive ("Felt your personal privacy was invaded", "Had people or circumstances interfere with your personal plans").

*Social-Achievement-Autonomous Adjective-Symptom Checklist (SAAAS).* This measure consisted of a list of 30 individual adjectives, 10 each of which were meant to reflect a negative social, failure, or independence-restrictive thematic 'symptom'. The social and failure adjectives were chosen from a previously validated list (Dozois, 1995) and have been used in studies of information processing in sociotropic individuals

(Dozois & Backs-Dermott, 2000). The independence-restrictive adjectives were collected from expressions Beck (1983) used in his description of the cognitive symptoms an autonomous person was expected to experience in response to independence-restrictive events, or were synonyms thereof compiled from a thesaurus. Representative items from each of the ten-adjective sets included: Social ("Rejected", "Unlikeable", "Isolated"), Achievement ("Failure", "Incompetent", "Defeated"), and Independence ("Restrained", "Infuriated", "Frustrated").

*Procedure (Time-1, Retrospective Design)*

Participants signed up for this study at an introductory psychology course web-site after reading a brief description of the procedure. This description especially encouraged individuals who were experiencing symptoms of depression and/or anxiety to consider participating in the study. Participants were tested in groups of ten or fewer in a large computer laboratory.

The first part of the study was conducted on the computer, in which participants completed the University Goal items and then a Life Event Self-Worth Impact Task (LESWIT). In the LESWIT, participants viewed each event from the List of Negative Life-events on the computer screen, one at a time, and were asked a series of follow-up questions. The first question asked participants if they had experienced the event in the previous 12 months, and if the participant answered in the affirmative he or she reported how many times the event had occurred (on a scale ranging from "once" to "almost constantly", scored 1 to 5, respectively). Participants were then asked to indicate what effect the event had on their life in general and on their sense of self-worth in the social,

achievement, and independence domains[1]. Participants indicated their ratings on separate

six-point scales ranging from "no impact" (scored zero) to "extremely negative" (scored

five). If participants indicated that the event had not occurred in the previous year, they

were prompted by the program to imagine what effect the event would have if it were to

occur during their first year of university and were then instructed to make the same life

and sense of self-worth impact ratings.

After completing the university goal importance ratings and LESWIT,

participants were administered the PSI-II and BDI-II in random order. Participants

completed the process of informed consent before participating and were debriefed

following the procedure. During debriefing, participants were reminded that a follow-up

study would take place in approximately six months, and that they would be contacted

via electronic-mail closer to that date to remind them to participate in the follow-up

study.

*Procedure (Time-2, Prospective Design)*

The follow-up study took place between 24 and 27 weeks after the initial study.

All participants who completed the Time-1 retrospective study received a maximum of

three electronic-mail messages requesting their participation in the follow-up study; all of

those responding to one of these messages were tested.

Participants began the study by completing a modified version of the LESWIT.

The follow-up version of this task was identical to the initial version except for two

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[1] The definitions of these life domains that followed were formulated giving close reference to Beck's
(1983) original exposition of the sociotropic and autonomous personality dimensions so as to insure their
theoretical relevance to these constructs. Specifically, the social life domain was defined as "Feeling close
to and liked by others", the achievement domain was defined as "Feelings of accomplishment and ability",
and the independence domain was defined as "Feeling independent and having the freedom to make your
own decisions, without feeling constrained or interfered with by intrusive circumstances or others".

primary differences.  First, participants were only asked questions concerning events that

they had actually experienced between the time of the initial study and follow-up.

Second, after completing the self-worth rating scales, participants were additionally asked

to indicate which mood-state adjectives from the SAAAS checklist best described the

"feelings [they] may have had, or things [they] may have thought about [themselves], in

direct response to experiencing [each] event".  Participants then judged how well they

had achieved their goals in each area and completed the BDI-II, PSI-II, and CAQ in

random order.  The follow-up study took place within two weeks of the final examination

period that marked the completion of the students' first academic year.

## Results

### Time-1 (Retrospective Design)

*Personality & Mood Scores*

Correlations between participants' Time-1 PSI-II Sociotropy and Autonomy sub-

factor scores and their BDI-II scores are presented in Table 1, along with the same

correlation matrix corrected for attenuation by the reliabilities of the scales.  All of the

observed correlations were of a moderate or lesser strength, supporting our premise that

the PSI-II Autonomy sub-factors may themselves represent distinctive personality

constructs.

*Goal Setting*

The goal scale scores represent a summation of the five items pertaining to each

scale.  BDI-II scores did not correlate significantly with importance ratings for social,

achievement, or independence goals. As illustrated in Table 2, however, the PSI-II scores

showed significant and predicted associations with importance ratings for personality-

congruent university goals, thus providing evidence of convergent validity for the PSI-II sub-scales.

*Perceived General Life Impact of Negative Events*

The total rated impact of particular life events in each of the self-worth areas was totalled for each life-event type. Separate averaged scores were then calculated by dividing the impact ratings for experienced negative events by the number of events participants had experienced, and dividing the impact ratings for imagined negative events by the remaining number of events (cf. Clark et al., 1992). BDI-II scores were positively correlated with mean impact ratings for negative social events, $r = .47$, failure-related events, $r = .46$, and independence-restricting events, $r = .46$ ($p$'s $< .001$). BDI-II scores were also significantly though less strongly correlated with the mean impact of imagined events (i.e., the impact that these events were imagined to have if they were to occur in the future): For negative social events, $r = .26$, failure-related events, $r = .30$, and independence-restricting events, $r = .17$ ($p$'s $< .05$).

To evaluate relationships between personality scores and perceived life-impact ratings for negative events, partial correlations were conducted controlling for BDI-II scores. Table 3 shows that seven of the eight predicted correlations were significant associating personality styles with life-impact ratings for congruent negative events (i.e., Sociotropy and Defensive Separation with social events, Perfectionism/Self-criticism with failure events, and Need for Control with independence-restrictive events).

*Domains of Self-worth Impact of Negative Events*

When significant correlations were found associating personality dimensions with overall life-impact ratings for events, personality scores were correlated with self-worth

impact ratings in the separate social, achievement, and independence domains in order to determine the primary area(s) of self-worth that were affected by these events. With few exceptions, however, participants' rated negative events as having a significant impact on multiple areas of self-worth and the ratings on each of these scales were highly inter-correlated. Thus generally all of the self-worth impact correlations were positive and statistically significant.

*Predicting BDI-II scores from personality-life-event interactions*

Presented in Table 4 are regression analyses designed to test our specific hypotheses concerning the interaction between personality dimensions and negative life-event types in predicting dysphoric symptoms. In each case, knowledge of participants' personality scores improved prediction of their BDI-II scores relative to knowledge of the number of negative events they had experienced alone. In addition, in the case of the Sociotropy, Perfectionism/Self-criticism, and the Need for Control dimensions, participants' personality styles interacted with their experience of personality-congruent negative life events to increase prediction of their BDI-II scores.

In order to determine the nature of these interactions, we constructed linear plots comparing participants who scored one standard deviation above and below the mean on the personality and event occurrence scales. In each of the three cases these analyses showed that, relative to participants who scored lower on the personality dimensions, those who scored higher were *less* dysphoric when they had experienced few negative personality-congruent events, but were *more* dysphoric when they had experienced an increased number of negative events.

<u>Time 2 (Prospective Design)</u>

*Personality & Mood Scores*

Personality scores at the initial evaluation were significantly correlated with scores on the same measures at six-month follow-up, demonstrating good test-retest reliability for the PSI-II: Perfectionism/Self-criticism, $r = .80$, Sociotropy, $r = .78$, Defensive Separation, $r = .69$, and Need for Control, $r = .57$ ($p$'s < .001). BDI-II scores were also significantly correlated over the six-month test-retest interval, $r = .57$, p < .001. However, only Perfectionism/Self-criticism scores measured at the initial evaluation were significantly correlated with follow-up BDI-II scores after controlling for initial BDI-II scores, $r = .26$, $p < .05$. In the foregoing analyses, we examine relationships between participants' initial (i.e., Time-1) personality scores and their follow-up data, rather than relationships between their concurrent (i.e., Time-2) personality scores, in order to examine the temporal relationship between personality factors and life-event vulnerability.

*Goal Attainment*

Time-1 BDI-II scores were negatively but not significantly correlated with goal attainment ratings for social, achievement, and independence goals measured at Time-2. In contrast, even after controlling for Time-1 BDI-II scores, Time-1 Sociotropy correlated negatively with the attainment of Independence goals, $r = -.21$, and the attainment of social goals was negatively correlated with Time-1 Defensive Separation, $r = -.23$, and Perfectionism/Self-criticism, $r = -.21$, ($p$'s < .05).

*Perceived General Life Impact of Negative Events*

Time-1 BDI-II scores were positively correlated with mean impact ratings for Time-2 negative social events, $r = .41$, failure-related events, $r = .40$, and independence-

restricting events, $r = .29$ ($p$'s $< .01$). To evaluate relationships between personality

scores and perceived life-impact ratings for negative events, partial correlations were

conducted controlling for Time-1 BDI-II scores. Perfectionism/Self-criticism scores

were positively correlated with mean impact ratings for Time-2 negative social events, $r$

$= .32$, failure-related events, $r = .34$, and independence-restricting events, $r = .25$ ($p$'s $<$

.05), whereas Need for Control scores were correlated specifically with mean life-impact

ratings for Time-2 independence-restrictive events, $r = .18$, $p < .05$.

*Predicting Follow-up BDI-II and CAQ scores from personality-life-event interactions*

We replicated the multiple regression procedure presented earlier, now entering

the number of events that participants' reported experiencing between Time-1 and Time-

2 as predictors. We also entered participants' centered Time-1 BDI-II score singly as a

step-1 predictor (thus Steps 1-3 in the retrospective analysis, see Table 4, were Steps 2-4

in the prospective analysis). These analyses were evaluated separately with both

participants' Time-2 BDI-II scores and CAQ scores as the criterion variables. The only

significant individual predictors to emerge from these analyses, however, were

participants' Time-1 BDI-II score, the number of negative social and failure-related

events participants' had experienced, and participants' Time-1 Perfectionism/Self-

criticism scores.

*Thematic Symptom-Specificity*

The number of adjectives of each thematic type chosen as descriptive were

totalled separately for each category of life events. Participants' Time-1 PSI-II sub-scale

scores were correlated with the number of negative social, achievement, and

independence-restrictive thematic symptoms they reported experiencing in direct

response to the negative events they had encountered with Time-1 BDI-II scores

controlled for (see Table 5). As shown in Table 5, Sociotropy was positively correlated

with achievement and independence-restrictive symptoms following negative social

events. Need for Control was positively correlated with social symptoms following both

negative social and independence-restrictive events. Finally, Perfectionism/Self-

Criticism was significantly correlated with all thematic symptoms (with the exception of

social rejection symptoms following negative social events).

<div align="center">Discussion</div>

The current study investigated whether Sociotropy and the Perfectionistic/Self-

critical, Need for Control, and Defensive Separation sub-scales of the PSI-II would act as

vulnerabilities to dysphoria in interaction with specific classes of negative life events. In

addition, this study evaluated whether these distinctive vulnerability factors would be

associated with the setting and attainment of personality-congruent goals within the

context of first-year students' transition to university life, as well as partially determine

the self-worth appraisal of negative events. Two general conclusions can be drawn from

the results obtained. First, this study supported the multidimensional nature of the

Autonomy construct along social, achievement, and control themes and demonstrated the

relevance of each of these factors to dysphoric symptoms. In addition to the uniqueness

of each social, achievement, and control vulnerability dimension, however,

commonalities also emerged among the distinctive personality-vulnerability factors and

different negative life-event types. Taken together, we believe these findings have

important implications for how the sociotropic and autonomous personality dimensions

and life-event congruency should be conceptualized and measured in future research. These issues are addressed in turn below.

Overall this study offered preliminary support for the contention that the autonomous personality pattern can be differentiated in terms of individuals' level of Perfectionism/Self-criticism, Need for Control, and Defensive Separation behaviours. Perfectionism/Self-criticism was related to achievement goal setting and the perceived impact of failure-related events, whereas need for control was associated with independence goal setting and the impact of independence-restrictive events. Finally, sociotropy was associated with social goal importance ratings and with the impact of negative social events, whereas defensive separation correlated negatively with social goal ratings and the perceived impact of imagined negative social events. These analyses highlight the potential for increased discernment of the underlying mechanisms of personality-event congruence that can be obtained when effects are examined at the sub-factor level (Little & Garber, 2000; Mazure, Raghavan, Maciejewski, Jacobs, & Bruce, 2001; Nelson, Hammen, Daley, Burge, & Davila, 2001). In addition, by focusing on control-needs, and including independence-restrictive events, we were able to more effectively test Beck's (1983) hypothesis that autonomy represents a vulnerability factor for depression when occurring in conjunction with events that inhibit freedom of goal pursuit. Therefore the exclusive focus of previous research investigations on reactions to failure events has not provided a comprehensive empirical test of congruence theory. In addition, the lack of an explicit focus on perfectionism and self-criticism in predicting responses to failure events seems also to have provided a relatively ineffective test of the congruency model.

Although the explanatory power of Beck's (1983) vulnerability theory may be expanded by distinguishing among the social, achievement, and control dimensions, our findings also draw attention to the complexity inherent in the ways that different types of negative life events are appraised. One important finding in this regard was that the self-worth impact of negative life events consistently extended beyond a single domain of influence. For example, negative social events affected individuals' self-worth not only in the social domain but also had ramifications for achievement level and perceived autonomous control. These findings are consistent with a dimensional perspective on life-event classification (Abramson, Alloy, & Hogan, 1997; Frewen & Dozois, 2004; Kwon & Whisman, 1998). However, our data also suggest that the effect of personality factors on primary domains of self-worth is unlikely to be straightforward (see Nunn, Mathews, & Trower, 1997). For example, sociotropy correlated not only with social self-worth perceptions but also with the effect of certain events on achievement and control-needs. In addition, our predictions concerning symptom specificity were not well supported. For example, in the prospective analyses, sociotropy significantly correlated with failure and independence-restricted cognitions following negative social events and not with interpersonal rejection cognitions, whereas an opposite pattern was found for need for control and negative social and independence-restrictive events. One possible explanation of these findings is that personality plays an additive role in self-worth appraisal, functioning to extend the effects of events beyond their theoretical primary domain of influence. For example, whereas the majority of individuals might experience cognitions associated with rejection and criticism following a negative social encounter (thereby creating a ceiling effect for social self-worth cognitions), sociotropy might

additionally be related to failure and independence-restrictive cognitions thus making the

negativity of these encounters even more generalized and salient.  Although this post-hoc

explanation remains speculative at present, it may warrant an explicit test in future

research.  In any event, our results suggest that perceptions of negative life events are

likely to be complex and have the potential of impacting individuals' self-worth in a

relatively encompassing manner.

      Certain limitations of the present study are deserving of address.  Although not

unique to the present longitudinal investigation, one principal limitation of the follow-up

study was the relatively low level of participation relative to the sample size at baseline.

This lower sample size likely proved restrictive in particular sets of statistical analyses.

Specifically, we were unable to replicate our retrospective results prospectively, which

undoubtedly was at least partially due to the relative stability of dysphoric symptoms that

our sample evidenced between the baseline and follow-up investigations.  In this

situation, baseline measures of dysphoria were strong predictors of follow-up dysphoria

alone, and our resulting tests of interactions between personality and negative life events

exhibited little incremental predictive value.  Larger scale investigations with a sufficient

level of variability between baseline and follow-up BDI-II scores will therefore be

required in future tests of these hypotheses.

      A second limitation concerns the as yet exploratory nature of our measures of the

social, achievement, and control factors of personality and negative life events.  For

example, although we believe our division of the PSI-II Autonomy scale itself into

separable vulnerability factors afforded a relatively compelling preliminary method for

demonstrating the unique roles of each factor, the subscales themselves may not be the

best available measures of each of the theoretical constructs we sought to investigate. In particular, the PSI-II Perfectionism/Self-criticism scale is composed of only four items, and certainly superior measures of perfectionism have been previously validated (e.g., Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991). In addition, various psychometric measures of the autonomy construct seem either to emphasize its components of perfectionism/self-criticism (e.g., the Depressive Experiences Questionnaire -Self-Critical Scale; Blatt, D'Afflitti, & Quinlan, 1976, and the Dysfunctional Attitudes Scale - Performance Evaluation subscale; Cane, Olinger, Gotlib, & Kuiper, 1986; Weissman & Beck, 1978) or interpersonal themes of independence preservation (e.g., the PSI-II; Robins et al., 1994). Heterogeneity in the emphasis of these sub-factors across these scales may be one of the reasons underlying their poor convergent validity (Bartelstone & Trull, 1995; Blaney & Kutcher, 1991; Rude & Burnham, 1993). Consequently, the present results may not generalize to measures of autonomy other than the PSI-II. Finally, our set of independence-restrictive events was exploratory and requires further validation. However, other methodologies have investigated the effects of negative events on perceptions of loss, humiliation, and entrapment (Broadhead & Abas, 1998; Brown, Harris, & Hepworth, 1995; Kendler, Hettema, Butera, Gardner, & Prescott, 2003) which may overlap to some extent with our focus on negative social events, failure-related events, and independence-restrictive events, respectively. Future research should seek to establish a criterion set of measures for each of the individual personality vulnerability and life-event constructs.

In summary, the present study is suggestive of the existence of four distinctive personality-vulnerability factors for depression: Sociotropy, Perfectionism/Self-criticism,

Need for Control, and Defensive Separation.  These constructs appear to differentially increase an individual's susceptibility to depression when present in the context of negative life experiences dealing primarily with social, achievement, and independence-control themes.  However, the cognitive appraisal of negative events is likely to be a complex process involving a relative patterning of each of these dimensions, determined in part by each of the personality-vulnerability orientations.  Future research should elaborate the present results by further investigating what specific personality variables create vulnerabilities for depression in conjunction with particular types of negative experiences.

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Author Note

Table 1

Correlation matrix for PSI-II Sociotropy and Autonomy sub-factors and BDI-II scores

| | 1. | 2. | 3. | 4. | 5. |
|---|---|---|---|---|---|
| 1. Sociotropy | --- | .49 | .23 | .16 | .46 |
| 2. Perfectionism/ Self-Criticism | .36*** | --- | .63 | .53 | .54 |
| 3. Need for Control | .18* | .41*** | --- | .63 | .45 |
| 4. Defensive Separation | .13 | .37*** | .46*** | --- | .36 |
| 5. BDI-II | .41*** | .40*** | .35*** | .30*** | --- |

Note: Below the diagonal are the measured correlations; Above the diagonal are the correlations corrected for attenuation by the reliability of the scales. Two-tailed tests of significance, * $p < .05$; *** $p < .001$.

Table 2

Correlations between PSI-II Sociotropy and Autonomy sub-factors and the Importance of

University Goals

|  | Social Goals | Achievement Goals | Independence Goals |
|---|---|---|---|
| Sociotropy | .37 *** | -.01 | -.05 |
|  | (.46) | (-.01) | (-.06) |
| Perfectionism/ | -.03 | .26*** | .08 |
| Self-Criticism | (-.04) | (.37) | (.12) |
| Need for Control | .00 | .10 | .23** |
|  | (.00) | (.14) | (.33) |
| Defensive Separation | -.22** | -.02 | .06 |
|  | (-.29) | (-.03) | (.08) |

Note: Numbers in brackets are correlations corrected for attenuation due to the reliability of the scales.  Two-tailed tests of significance, ** $p < .01$, *** $p < .001$.

Table 3

Matrix of partial correlations between sociotropy and autonomy sub-factors and the mean

impact of negative events after controlling for BDI-II scores

| | Social Events | | Failure Events | | Independence-Restrictive Events | |
| | Recalled | Imagined | Recalled | Imagined | Recalled | Imagined |
| --- | --- | --- | --- | --- | --- | --- |
| Sociotropy | .27** | .30** | .09 | .20** | .13* | .14* |
| | (.30) | (.33) | (.10) | (.22) | (.15) | (.16) |
| Perfectionism/ | .09 | .09 | .17* | .13* | .11 | .12 |
| Self-Criticism | (.12) | (.12) | (.23) | (.17) | (.15) | (.17) |
| Need for | .01 | .07 | .03 | .14* | .22** | .16* |
| Control | (.01) | (.09) | (.04) | (.18) | (.29) | (.21) |
| Defensive | -.12 | -.17* | -.10 | -.10 | -.04 | -.01 |
| Separation | (-.14) | (-.19) | (-.12) | (-.12) | (-.05) | (-.01) |

Note: Numbers in brackets are correlations corrected for attenuation due to the internal consistency reliability of the scales.  Two-tailed tests of significance, * p < .05, ** p < .01.

Table 4

Regressions Predicting Concurrent BDI-II scores from Interaction between Personality factors and Congruent Negative Life Events

_____

| Step, Variables Entered | $R^2$ | $\Delta R^2$ | p = |
|---|---|---|---|
| 1. Social Events (SE) | .20 | .20 | <.001 |
| 2. Sociotropy | .27 | .07 | <.001 |
| 3. Sociotropy X SE | .29 | .02 | .04 |
| | | | |
| 1. Social Events (SE) | .20 | .20 | <.001 |
| 2. Defensive Separation | .23 | .03 | <.01 |
| 3. Defensive Separation X SE | .23 | <.01 | Ns |
| | | | |
| 1. Failure Events (FE) | .24 | .24 | <.001 |
| 2. Perfectionism/Self-criticism | .31 | .07 | <.001 |
| 3. Perfectionism/Self-criticism X FE | .33 | .02 | .07 |
| | | | |
| 1. Independence-restrictive Events (IE) | .13 | .13 | <.001 |
| 2. Need for Control | .21 | .08 | <.001 |
| 3. Need for Control X IE | .23 | .02 | .04 |

Dependent variable = BDI-II score

_____

Table 5

Matrix of Partial Correlations between Time 1 PSI-II Sub-factor scores with Time 2

Congruent Thematic-Symptoms controlling for BDI-II scores at Time 1

| | Negative Social Events | | | Failure-related Events | | | Independence-restrictive Events | | |
|---|---|---|---|---|---|---|---|---|---|
| | Soc. | Ach. | Aut. | Soc. | Ach. | Aut. | Soc. | Ach. | Aut. |
| Sociotropy | -.10 | .29** | .36*** | .07 | .13 | .04 | .02 | .04 | -.11 |
| Perfectionism/ Self-criticism | .16 | .26* | .44*** | .35*** | .36*** | .25* | .29** | .35*** | .31** |
| Need for Control | .28* | .03 | -.01 | .07 | -.02 | -.11 | .21* | .02 | .06 |
| Defensive Separation | .08 | .05 | .05 | .10 | .14 | .15 | .15 | .01 | -.02 |

Note: * p < .05, ** p < .01, *** p < .001, one-tailed, "Soc." = Negative Social Symptoms, "Ach." = Negative Achievement-related symptoms, "Aut." = Negative Autonomous-related symptoms.