

## Dispositional Rumination in Individuals with a Depression History

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**Abstract** Many studies show that rumination is related to current depressive episodes but very few studies have examined whether rumination is elevated among those with a history of diagnosed depression. The goal of the current study was to examine whether a history of diagnosable major depressive disorder (MDD) is related to rumination among undergraduates. In addition, individual difference variables (i.e. problem-solving abilities, neuroticism and self-esteem) that might help explain rumination were examined. Participants were interviewed with the SCID to diagnose MDD. Fifty-one had no history of MDD and 41 had a MDD history. Depression history was significantly related to rumination, even after controlling for subsyndromal symptoms. Rumination was related to negative problem-solving orientation. Major limitations of this study are the cross-sectional design, undergraduate sample and the relatively small sample size, particularly for multidimensional analyses.

**Keywords** Rumination · Major depressive disorder · Problem-solving abilities · Remission

A large body of research conducted over the past several decades has focused on identifying psychological factors involved in the onset and maintenance of Major Depressive Disorder (MDD). Cognitive theories of depression, in particular, have spurred research examining the etiology of MDD, the functioning of depressed individuals, and vulnerability to this disorder. In this context, Beck (1967, 1976) formulated a theory that attributes the onset and maintenance of this disorder in large part to biases in the processing of information and stimuli from the environment. Beck maintains that not only are these cognitive biases signs of depressive episodes, but they represent a significant vulnerability factor for the development of depressive episodes.

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Drawing on Beck's theory, Teasdale (1985) hypothesized that individuals prone to depression have a negative cognitive response to negative mood and that these cognitions create a downward spiral which exacerbates negative mood. Similarly, Bower (1981) theorized that negative emotions become associated with other cognitive information related to failure and loss. Thus, when a sad mood state is present, cognitive representations with similar valence are activated. Collectively, these abovementioned theories suggest that cognitive processes contribute to the onset and maintenance of depressive symptoms.

Drawing from the cognitive literature, Nolen-Hoeksema and Morrow (1991) hypothesized that the way in which a person responds to his or her depressive symptoms predicts the severity and duration of depressive episodes. Instead of engaging in pleasurable activities to distract themselves from their mood or using other coping skills to deliberately relieve their mood, people who ruminate engage in introspections that exacerbate their depression (Morrow & Nolen-Hoeksema, 1990). Ruminative responses are a type of cognition or behavior that focus a person on his or her depressive symptoms and the possible causes and effects of the depressed mood (Morrow & Nolen-Hoeksema, 1990). Ruminative behaviors may include writing in one's diary about how poorly one feels or repeatedly telling friends or family members how much one dislikes oneself. Hence, people who ruminate in response to a depressed mood are expected to experience longer and more severe episodes, whereas people who distract themselves from their symptoms are expected to experience shorter and less severe depressive moods (Nolen-Hoeksema & Morrow, 1991). Therefore, rumination may help explain sustained negativity of cognitions.

There are several different mechanisms by which ruminative responses may contribute to depressed mood. Some of these may simply have to do with keeping a person in a sad mood for longer, and thereby intensifying the effects of mood on cognition. More specifically, there is a substantial literature on mood-dependent shifts in recall. For example, compared with a control group, studies of individuals with depression have indicated that they are likely to recall a greater number of negative life events (cf. Clark & Teasdale, 1982), to recall experiences that are more negative (Clark & Teasdale, 1982) and to recall negative events more quickly (Williams & Scott, 1988). Moreover, several studies suggest that depressed mood increases the likelihood that an individual will form negative conclusions about events (Blaney, 1986), and particularly about their own performance (Bower, 1981). Morrow and Nolen-Hoeksema (1990) extended upon this literature to suggest that rumination may amplify depressed mood by bringing a range of negative thoughts to the forefront of an individual's mind. Furthermore, findings from several prospective studies indicate that rumination predicts changes in depressive symptoms after a major life event (Nolen-Hoeksema & Morrow, 1991; Nolen-Hoeksema, Parker, & Larson, 1994).

Experimental paradigms also support the influence of rumination on mood. For example, Morrow and Nolen-Hoeksema (1990) found that nondepressed people who were assigned to engage in an active, distracting task after a negative mood induction experienced reduced sadness, whereas those people who were assigned to engage in a passive ruminative task experienced little reduction in sadness. Rimes and Watkins (2005) found similar results when they randomly assigned currently depressed and non-depressed participants to two distinct forms of rumination: analytic which is high self-focus and can be considered more ruminative and experiential which is low self-focus

and can be considered less ruminative. Depressed individuals in the analytic self-focus condition rated themselves as more worthless, incompetent, and depressed than did depressed participants in the experiential condition. Several other experimental studies confirm these findings (Butler & Nolen-Hoeksema, 1994; Nolen-Hoeksema & Morrow, 1993).

Although rumination has been conceptualized as a trait-like vulnerability factor for depressive episodes (Roberts, Gilboa, & Gotlib, 1998), most studies have focused on links between rumination and current depression. One way to begin to move towards a better understanding of depressive vulnerability is to examine individuals with a history of depression, but no current symptoms. Although a history of depression is not the same as depression vulnerability, it can be used as a way to identify an at-risk sample because depression is so highly recurrent. Most studies of dispositional tendencies toward rumination have used a 22-item self-report scale called the Ruminative Responses Scale (RRS). Across several samples, students with a history of dysphoria have been found to obtain higher RRS scores than do students with no history of dysphoria, and the correlation between number of lifetime episodes of dysphoria and rumination remains significant after controlling for gender, neuroticism, and current depression (Roberts et al., 1998). These studies, however, did not consider clinically diagnosed samples. Therefore, the first goal of this study was to explore the relationship between rumination and a history of depression, among persons without current depression. We hypothesized that individuals with a history of MDD would obtain significantly higher rumination scores than those individuals without a history of the disorder.

Given that rumination has become increasingly established as a key cognitive process involved in depression, it is important to understand variables that drive rumination. Therefore, the second goal of this study was to examine individual difference variables that might help explain why some people have the tendency to keep thinking about a problem, situation or sad mood. Previous authors have studied a set of variables that could help in this regard. For example, it has been suggested that people who suffer from low self-esteem may be more likely to dwell on their shortcomings and negative experiences. In addition, the inability to successfully problem-solve may cause a person to continuously ponder difficult circumstances. Finally, neurosis may intensify negative affect in the face of loss or threat to such an extent that individuals ruminate about their intense emotion and overwhelming situation. These abovementioned variables, self-esteem, poor problem solving and neuroticism, have each been independently related to current depression (Lyubomirsky & Nolen-Hoeksema 1995; Roberts et al., 1998; Roberts & Monroe, 1994) and rumination (Ciesla, 2005; Ito & Agari, 2003; Lyubomirsky, Tucker, Caldwell, & Berg, 1999). Hence, we predicted that these variables would conjointly drive increases in rumination. Given this previous literature, our second hypothesis was that rumination would mediate the relationship between these variables and depression vulnerability (as assessed by history of MDD).

In sum, a large literature supports links between current depression and rumination, but less is known about how rumination relates to a history of depression or key variables that might mediate this relationship. In this study we tested whether individuals with a diagnosed history of MDD, but who were not currently depressed, were more prone to rumination. In addition, we examined variables that may explain how rumination is related to depression.

## Methods

### Participants

Participants were 92 college undergraduates at a private Southeastern University. Of these, 51 had no history of depression (18 males, 33 females) and 41 had a history of depression (13 males, 28 females). All participants received partial credit in their Introductory Psychology course for study participation.

With respect to demographic characteristics of the sample, the average age of the participants was 19.25 ( $SD = 2.73$ ) and the average years of education completed was 13.03 ( $SD = 1.30$ ). Other demographic characteristics are displayed in Table 1. Groups did not significantly differ on any demographic characteristics with the exception of marital status in which more people with a history of depression reported being married ( $n = 2$ ).

### Procedure

During the first week of the semester, a subset of the students enrolled in Introductory Psychology completed a measure of lifetime vulnerability to depression (Inventory to Diagnose Depression-Lifetime, IDD-L). Students who endorsed at least five symptoms of depression lasting at least 2 weeks on the IDD-L were invited to participate in the study. Additional participants were recruited through a website that posts available research studies for students.

During the first session, all potential participants met individually with an experimenter and completed written informed consent procedures. No participant declined participation during the informed consent procedures.

Trained undergraduate and graduate research assistants administered modules of the Structured Clinical Interview for DSM-IV (SCID) for depression, mania, psychosis and substance abuse/dependence. As noted above, inclusion criteria were a lifetime history

**Table 1** Bivariate correlations of key variables with potential confounds ( $N = 87$ )

Variable	Depression history	Rumination
Age	.19	.03
Education	.05	-.16
MASQ		
Anxious symptoms	.27*	.52**
Anxious arousal	.38*	.39**
Depressive symptoms	.27*	.55**
Anhedonic depression	.19	.46**
Positive problem orientation	-.12	-.20
Negative problem orientation	.33**	.66**
Impulsivity style	.13	.30*
Avoidance style	.26*	.40*
Rational problem solving	.11	-.03
Self-esteem	-.28**	-.37**
Neuroticism	.28**	.58**

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

of MDD for the depression group or no lifetime history of MDD for the control group. Participants who met criteria for current Major Depressive Episode, current or lifetime mood disorders secondary to a general medical condition, past or present mania, psychosis, and those with alcohol or substance abuse or dependence in the past year on the SCID were excluded.

Participants who met study criteria were invited to complete the next part of the study. Participants completed a demographic measure, a treatment history questionnaire, Ruminative Response Scale, Social Problem Solving Inventory-Revised and the NEO-Five Factor Inventory Neuroticism Subscale. Finally, participants completed additional measures which are not relevant to this current report (S. L. McMurrich & S. L. Johnson, submitted).

## Measures

### *Measures of symptoms*

*Structured Clinical Interview for DSM-IV (SCID)*. The SCID (Williams et al., 1992) is a structured clinical interview designed to assess DSM-IV diagnostic criteria for Axis I disorders. For this study, only the major depression (lifetime and current), mania (lifetime and current), substance use and psychosis modules of the SCID were used. The SCID has been shown to have good test–retest reliability among trained interviewers (Williams et al., 1992). Before conducting SCIDs, interviewers completed extensive training procedures, which included written materials, didactic presentations, listening to other interviews, conducting a series of role plays, and demonstrating adequate reliability with other interviewers. To maintain reliability, all SCID interviews were audio taped with random review by the research team, as well as review of any that seemed particularly difficult to the interviewer. A random sample of SCID interviews ( $n = 7$ ) were reviewed for reliability; inter-rater reliability for the number of SCID symptoms each rater judged to be present per participant was good (i.e.,  $r = .98$ ), as well as for the presence or absence of diagnoses ( $r = 1.0$ ).

*Inventory to Diagnose Depression-Lifetime (IDD-L)*. The IDD-L (Zimmerman & Coryell, 1987) is a 45-item self-report scale designed to measure lifetime MDD. For each item on the IDD-L, participants are asked to choose which of five statements best describes how they felt during the week in their lifetime that they felt the most depressed. Each item is rated on a scale of 1–5. For any symptom endorsed, participants are asked if this symptom lasted for more than two weeks. The IDD-L provides a diagnostic categorization of MDD. In previous studies, this index has demonstrated sensitivity of .70 in comparison with diagnostic interviews, and specificity of .95 (Goldston, O' Hara, & Scharz, 1990). The IDD-L diagnostic index was used to identify potential participants with a history of depression. Because not all Introductory Psychology students completed this measure, the IDD-L was not available for many participants.

*Mood and Anxiety Symptoms Questionnaire (MASQ)*. The MASQ (Watson, Weber, Assenheimer, & Clark, 1995) is a 62-item self-report measure designed to discriminate between current symptoms of anxiety and depression. Many anxiety measures are so highly correlated with depression measures that it can be difficult to examine these as separate constructs; the MASQ was designed to provide factors that more carefully parse these symptom dimensions. The content of the items relate to DSM-IV symptom criteria for the mood and anxiety disorders (Reidy & Keogh, 1997), but more

specifically provide four-factor-analytically based subscales: anxious symptoms, anxious arousal, depressive symptoms and anhedonic depression. Items are rated on a scale of 1 (not at all) to 5 (extremely) scale of how much symptoms were present during the past week. The MASQ was scored by summing items into the four subscales. The MASQ has good discriminant and convergent validity (Watson, Weber et al., 1995). In particular, subscales have shown expected differential correlations with anxiety and depressive diagnoses (Watson, Clark et al., 1995).

#### *Measures of rumination*

*Ruminative Response Scale (RRS)*. The RRS (Nolen-Hoeksema & Morrow, 1991; Treynor, Gonzalez, & Nolen-Hoeksema, 2003) was used to assess dispositional tendencies to ruminate. The RRS consists of 22 possible responses to sad mood that are focused on the self, on one's symptoms, and on the possible causes and consequences of the mood state. Examples of such items are: "Think 'why do I have problems other people don't have?'" "Think about how hard it is to concentrate" and "Think 'why can't I get going?'" The RRS also assess behavioral responses to dysphoria, such as "Go away by yourself and think about why you feel this way." Participants rate the responses on a scale of 1 (almost never respond in this way) to 4 (almost always respond in this way). The individual items were summed to obtain a total RRS score. In previous studies, the RRS has achieved high inter-rater reliability, Cronbach's alpha .90 (Nolen-Hoeksema et al., 1994), a test-retest correlation of .67 over a two-year period (Treynor et al., 2003) and satisfactory convergent and predictive validity (Nolen-Hoeksema & Morrow, 1991; Nolen-Hoeksema et al., 1994, Treynor et al., 2003).

In previous studies, a specific factor-analytically based subscale of the RRS, Brooding, was more predictive of depression than the overall RRS score (Treynor et al., 2003). Hence, secondary analyses were conducted with the Brooding subscale.

#### *Measures of potential predictors of rumination*

*Social Problem Solving Inventory-Revised (SPSI-R)*. The SPSI-R (Maydeu-Olivares & D'Zurilla, 1996) is a 52-item self-report measure designed to assess two types of problem orientation (i.e., Positive and Negative) and three types of problem-solving styles (i.e., Rational Problem Solving, Impulsivity/Careless Style, and Avoidant Problem Style). Each of these five subscales is scored by summing relevant items after reverse scoring where appropriate. Test-retest reliabilities over three weeks range from .72 to .88 (D'Zurilla, Nezu, & Maydeu-Olivares, 1996). Validity data has also been reported for both normal and clinical samples (D'Zurilla et al., 1996). Previous studies have indicated that people with a ruminative response style have deficient problem-solving skills (Lyubomirsky et al., 1999).

*Rosenberg Self-Esteem Questionnaire (RSE)*. The RSE (Rosenberg, 1965) consists of five positive and five negative items about the self. Participants rated each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). To score the RSE, positive and reverse-scored negative items were summed, with high positive scores indicating higher self-esteem. The scale has been widely used and it has been shown to have adequate psychometric properties (Rosenberg, 1965).

*NEO-Five Factor Inventory (NEO-FFI)*. The NEO-FFI (Costa & McCrae, 1992). The NEO is a 60-item self-report measure with subscales to assess five personality

factors: for this study, only the 12-item neuroticism subscale was examined. The neuroticism subscales was scored by summing the items; some items were reverse scored accordingly. Two-week test–retest reliability is high (.86–.90 for the five scales, Robins, Fraley, Roberts, & Trzesniewski, 2001) and internal consistency ranges from .68 to .86 (Costa & McCrae, 1992).

## Results

The primary goal of the current study was to test whether rumination was associated with depression history. A second goal was to examine other variables (poor problem solving, neuroticism and low self-esteem) that might drive rumination, and to determine whether links between these variables and depression were mediated by rumination. These goals were assessed using hierarchical multiple regression analyses.

### Preliminary analyses

Potential outliers were examined across groups for all measures. All continuous variables were examined to see if they conformed to assumptions of normality regarding skew and kurtosis, as well as homogeneity of variances between groups.<sup>1</sup> As shown in Table 2, means and standard deviations of most measures were as expected.

Analyses next turned to the identification of potential covariate and confound variables. As shown in Table 3, depression history and rumination were not related to most potential confounds. Nonetheless, depression history and rumination scores were both related to higher current symptom scores on the MASQ. Consequently, all four of the MASQ subscales were controlled for in subsequent analyses.

The effects of the categorical variables of ethnicity, primary language and marital status on the central outcome variables were explored with one-way ANOVA's with the dependent variables of depression history and rumination. None of the ANOVAs were significant. Ethnic group did not vary on depression history,  $F(4,84) = .95$ ,  $p = .44$ , or rumination,  $F(4,84) = 1.51$ ,  $p = .21$ . Similarly, people with different marital status did not differ on depression history,  $F(1,88) = 2.10$ ,  $p = .13$  or rumination,  $F(1,88) = .72$ ,  $p = .49$ .

### Analyses of the relationship between depression history and rumination

Bivariate correlations indicated that rumination (RRS) was related to history of depression ( $r = .43$ ). To provide better control over potential confounds, a hierarchical multiple regression analysis was used to test the hypothesis that rumination is associated with the criterion variable of depression history.<sup>2</sup> In the first block, all four of the MASQ subscales were entered to control for current depression and anxiety symptoms.

<sup>1</sup> Because one participant was considerably older and one was more educated than other participants, age (skew = 5.39,  $SE = .25$ , kurtosis = 37.54,  $SE = .50$ ) and education (skew = 1.49,  $SE = .26$ , kurtosis = 2.00,  $SE = .51$ ) were positively skewed and platykurtic. This participant was not an outlier on any of the major variables, so was not excluded from the analyses.

<sup>2</sup> Separate, parallel analyses were conducted on the Brooding subscale of the RRS. Results were parallel with those conducted for the rumination subscale.

**Table 2** Descriptive characteristics of sample ( $N = 89$ )

	Depression history		Control	
	Mean	SD	Mean	SD
Dispositional rumination*	52.12	12.60	39.78	13.41
Anxious symptoms*	22.76	9.15	18.48	6.45
Anxious arousal*	28.04	9.67	21.94	4.82
Depressive symptoms*	25.30	10.55	20.49	6.66
Anhedonic depression	55.59	11.77	51.28	10.92
Self-esteem (RSE)*	55.45	7.86	59.90	7.44
Neuroticism subscale*	21.64	7.77	17.15	7.47
Gender				
Male	35.3%		31.7%	
Ethnicity				
Caucasian	68.6%		68.3%	
Hispanic	11.8%		22%	
African-American	9.8%		2.4%	
Asian	2.0%		2.4%	
Marital status				
Single	96.1%		87.8%	
Married/Cohabiting	2%		2.4%	
Bilingual	17.6%		26.8%	
Psychiatric history				
Psychotherapy history	10%		16%	
Current psychiatric medication	2%		7%	
Parental depression history	23.5%		36.6%	

Note. *T*-test comparing groups was significant at  $p < .05$

In the second block, rumination was entered. Rumination was significantly related to depression history after accounting for MASQ subscales (see Table 3).

#### Mediational tests

Our second hypothesis was that rumination might mediate the relationship between neuroticism, self-esteem, and problem solving and depression vulnerability (as assessed by depression history). To examine this hypothesis, we conducted three sets of tests recommended by Baron and Kenny (1986). That is, we tested whether (1) neuroticism, self-esteem, and problem solving significantly relate to rumination, (2) neuroticism, self-

**Table 3** Summary of hierarchical regression analysis for rumination as a predictor of depression history ( $N = 89$ )

Variable	Adjusted $R^2$	$R^2$ change	$df$	Final $\beta$
Block 1	.12**	.16**	4, 85	
MASQ				-.41*
Anxious symptoms				.57**
Anxious arousal				.01
Depressive symptoms				-.07
Anhedonic depression				
Block 2	.24***	.12***	5, 84	
Rumination				.43***

\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$



esteem, and problem solving significantly relate to depression history, and (3) rumination no longer significantly relates to depression history after accounting for the neuroticism, self-esteem, and problem solving.

To test the first step, one hierarchical multiple regression was conducted in which neuroticism, self-esteem, and problem solving were examined conjointly as correlates of rumination. In this hierarchical multiple regression, the four MASQ subscales were controlled for in the first block, and neuroticism, self-esteem and the four problem-solving subscales were entered in the second block. Only negative problem orientation was uniquely and significantly related to rumination (see Table 4). Given that neuroticism and self-esteem were not significantly related to rumination, they were not included in further testing of the mediational model.

For the second stage of mediational testing, a multiple regression analyses was conducted with depression history as the criterion variable, the four MASQ subscales entered in block one as control variables, and negative problem-solving orientation entered in the second block. These analyses revealed that negative problem orientation was associated with depression history,  $r^2$  change (1, 91) = .11,  $p \leq .05$ .

To test the third step, we conducted a hierarchical multiple regression with depression history (SCID diagnosis) as the outcome variable, MASQ subscales entered in block one as control variables, negative problem orientation entered in block two, and rumination entered in block 3. Rumination continued to account for a significant proportion of the variance in depression history even after accounting for negative problem solving orientation,  $r^2$  change (1, 83) = .08,  $p \leq .05$ . In sum, rumination did not mediate links between depression history and negative problem-solving orientation.

## Discussion

A substantial literature supports a relationship between rumination and current depressive episodes. A much smaller literature supports the link between history of depressive symptoms and rumination (Roberts et al., 1998). The current study

**Table 4** Summary of hierarchical regression of neuroticism, problem-solving and self-esteem as predictors of rumination ( $N = 86$ )

Variable	Adjusted $R^2$	$R^2$ change	$df$	Final $\beta$
Block 1	.34**	.37**	4, 82	
MASQ				
Anxious symptoms				.05
Anxious arousal				-.03
Depressive symptoms				-.01
Anhedonic depression				.27**
Block 2	.50**	.20**	7, 75	
Neuroticism				-.02
Positive problem orientation				-.02
Negative problem orientation				.75***
Rational problem solving				.27*
Impulsivity/Carelessness style				.13
Avoidance style				-.26
Self-esteem				.01

\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

extended the latter line of research by considering whether rumination is related to a history of clinically diagnosed major depression, of which to our knowledge, there are no studies to date. The hypothesis of this study was that rumination would be related to depression vulnerability, as measured using diagnoses of previous major depression. Consistent with prior research that examined self-reported depressive symptoms (cf. Roberts et al., 1998), the results of the current study showed a significant relationship between rumination and depression history, even after controlling for current mood symptoms.

Before considering findings, it is important to acknowledge limitations. This study is not prospective, the sample is limited to undergraduates, and the sample size is relatively small, particularly for multidimensional analyses. Moreover, although analyses controlled for self-reported anxiety symptoms, diagnoses of anxiety were not considered, despite evidence that anxiety diagnoses are related to rumination (Muris, Roelofs, Rassin, Franken, & Mayer, 2005). Hence, it will be important in the future to determine whether rumination has predictive power for more severe levels of depression, and to more carefully examine differential prediction of depressive versus anxiety disorders.

Notwithstanding the limitations of this study, this study is the first to conjointly examine a set of variables that might drive rumination within those with a diagnosed history of depression. Even though rumination was related to each of the individual difference variables within bivariate models, rumination was unrelated to self-esteem or neuroticism after controlling for current mood symptoms and problem-solving abilities. On the other hand, negative problem orientation was found to be significantly related to rumination even within multivariate models, suggesting that people who are more pessimistic about their ability to solve potential problems were more likely to ruminate. It may be that when people reach an extreme level of pondering their solutions, they become negativistic, stuck and unable to choose one potential action. Nonetheless, rumination did not mediate the link between negative problem orientation and depression history. Rather problem solving and rumination both independently related to depression history.

One possible interpretation of these findings, then, would be that both rumination and poor problem solving render an individual vulnerable to depressive episodes. Indeed, Nezu and Ronan (1988) found that problem-solving appraisals predict future depression scores suggesting that problem solving is an antecedent playing a causal role in the development of depressive episodes. Furthermore, there is particularly strong evidence of rumination as a prospective predictor of depression (e.g., Nolen-Hoeksema & Morrow, 1991). Nevertheless, the cross-sectional nature of this study limits the ability to determine whether poor problem solving and rumination are predictors of depression or merely scars of having been formerly depressed.

If rumination continues to obtain support as a predictor of depression, one clinical implication would be the need to teach these people more adaptive means of responding to their negative mood. Several studies support the view that a more intellectual self-attentiveness known as reflection is not related to negative affect (e.g., Teasdale & Green, 2004). Therefore, clinical interventions might help people develop a more reflective self-focus. Additionally, given that rumination appears related to active, albeit pessimistic, attempts to problem-solve, treatment strategies that focus on increasing an individuals problem-solving abilities and appraisals may play a role in reducing ruminative thoughts and hence, prevent the onset of depressive episodes.

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