LETTER TO THE EDITOR

Situational Rumination: A Method for Minimizing Retrospective Reporting BiasStephanie L. McMurrich,¹ Sheri L. Johnson² & Andrew D. Peckham¹¹ Massachusetts General Hospital, Bipolar Clinic and Research Program, Boston, MA, USA² Department of Clinical Science, University of California, Berkeley, CA, USA**Correspondence**

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Ruminative responses are cognitions and behaviors that focus people's attention on their depressive symptoms and the possible causes of the depressed mood [1]. Substantial experimental and longitudinal research supports the theory that ruminative responses can predict a more prolonged negative mood in response to laboratory stressors, and a greater likelihood of depressive symptoms after a major life event [2].

Most assessments of individual differences in rumination have relied on self-report measures of the propensity to ruminate dispositionally. These assessments, however, may be biased. Evidence has indicated that people do not– and maybe even cannot– accurately describe their own previous behaviors and cognitions [3,4]. A substantial literature on mood-dependent shifts in recall indicates that people with a history of major depressive disorder (MDD) may be particularly biased to describe themselves in a more negative fashion [5–7], particularly for long-term recall.

The goal of this study was to develop a new way of assessing rumination that would avoid biases in retrospective reporting. To do so, we assessed ruminative reactions of people to a stressor. Participants received parental criticism, which has been shown to effectively elicit negative affect [8]. Participants were asked 4–6 h later, how much they thought about that criticism (ruminated). To validate the situational rumination measure, we examined whether ruminative responses to parental criticism correlated with self-reported ruminative tendencies and with a lifetime history of depression.

Participants were 92 undergraduates (61 females; mean age = 19.25, SD = 2.73). Forty-one had a history of MDD. Groups did not significantly differ on gender, ethnicity, employment sta-

tus, psychiatric medications, parental depression history, or past psychotherapy.

Students enrolled in Introductory Psychology completed the inventory to diagnose depression-lifetime. Students endorsing five symptoms of depression lasting, at least, 2 weeks were invited to enroll in the study. Other participants were recruited through a website. All participants, including parents, completed written informed consent.

At the first session, the structured clinical interview for DSM-IV was administered. Inclusion criteria were a lifetime MDD or for controls, no lifetime MDD. Exclusion criteria included current MDD or substance abuse/dependence, or current/lifetime mania, psychosis, or mood disorders secondary to a medical condition. Our interrater reliability for randomly selected audiotapes was good for both the number of symptoms per participants ($r_1 = 0.98$) and MDD diagnoses ($r_1 = 0.97$).

Participants provided permission to contact his or her parent, along with a demographic measure, a treatment history questionnaire, and the Ruminative Response Scale (RRS; dispositional rumination). Then, parents were contacted via mail. If they chose to participate, they were asked to write a critical letter of, at least, 10 sentences that described their child's concerning behavior. To homogenize letters, parents were asked to consider writing about an item from a list of common concerns for parents of college-age children, and they were given an example letter. For ethical reasons, parents were instructed to choose a concern that had been expressed to their child. Eighty-two mothers and eight fathers wrote letters. Parents also filled out a form about their own history of MDD.

Parents also wrote a positive letter to their child. Although, they were not used in the study, these letters were mailed to participants immediately after study completion to counterbalance effects of the negative letters.

One month after session one, participants completed the Positive and Negative Affect Schedule (PANAS), the Mood and Anxiety Symptoms Questionnaire (MASQ), and then read the critical letters. Participants were given instructions to log onto a secure encrypted webpage 4–6 h after the session using a personalized password to complete the PANAS and the RRS.

All mood measures are common, well-validated, and highly reliable.

One participant, an outlier on mood measures, was excluded. Distributions of measures were as expected. Rumination was unconfounded with demographic characteristics or parental depression history.

To examine whether letters effectively changed affect and did so comparably across groups, two repeated measures, ANOVAs, were conducted to examine negative affect (NA) and positive affect (PA) of participants in response to the critical letter. Each ANOVA examined the effects of time (pre, post, and 4–6 h postletter), group (MDD/control) and Time $\times$ Group. For PA, a significant effect for time with within-subjects *post hoc* contrasts indicated a significant decrease in PA from preletter to postletter $F(1, 76) = 19.63, P \leq 0.001$, and from postletter to 4–6 h after reading the letter, $F(1, 76) = 23.31, P \leq 0.001$. The effects for group and for Time $\times$ Group were not significant. In contrast, NA did not change significantly with time, although, the MDD group had higher NA scores across time.

Bivariate correlations confirmed the validity of situational rumination: situational rumination was significantly related to dispositional rumination, depression history, current symptoms on the MASQ, and NA 4–6 h after reading the letters (Table 1).

Most assessments of rumination have relied on dispositional measures. Extensive research indicates that people vulnerable to depression tend to be overly negative in the way they evaluate

Table 1 Correlations of key variables with each other and with potential confounds (N = 74)

Variable	Depression history	Situational rumination
Age	0.19	0.00
Education	0.05	−0.09
Parent depression history	0.16	0.10
MASQ (before reading letter)		
Anxious symptoms	0.32**	0.29*
Anxious arousal	0.35**	0.32**
Depressive symptoms	0.32**	0.59**
Anhedonic depression	0.22	0.39*
NA end of day	0.239*	0.632**
Dispositional rumination	0.429**	0.527**

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

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

themselves, and that these biases are particularly severe for long-term recall [7]. To minimize recall bias, we used a novel paradigm to examine the extent to which people engage in rumination several hours after a personally relevant stressor.

Findings suggest the validity of a situational approach to assessing rumination. The situational rumination measure correlated robustly with dispositional rumination, current mood and anxiety symptoms, sustained NA after reading the letters, and MDD history.

Two limitations are clear. First, unlike previous research using maternal criticism [9], the mood effects of the letters were observed on PA but not NA. Second, although our situational rumination measure avoids bias, dispositional rumination measures may have greater sensitivity because they average across a broad array of situations [10]. The decision to use situational versus dispositional measures may depend on the research aims.

References

- Morrow J, Nolen-Hoeksema S. Effects of responses to depression on the remediation of depressive affect. *J Pers Soc Psychol* 1990;**58**:519–527.
- Watkins ER. Constructive and unconstructive repetitive thought. *Psychol Bull* 2008;**134**:163–206.
- Bradburn NM, Rips LJ, Shevell SK. Answering autobiographical questions: The impact of memory and inference on surveys. *Science* 1987;**236**:157–161.
- Brewer F. What is autobiographical memory? In: Rubin DC, editor. *Autobiographical memory*. Cambridge, England: Cambridge University Press, 1996:25–49.
- Clark DM, Teasdale JD. Diurnal variation in clinical depression and accessibility of memories of positive and negative experiences. *J Abnorm Psychol* 1982;**91**:87–95.
- Williams JM, Scott J. Autobiographical memory in depression. *Psychol Med* 1988;**18**:689–695.
- Bower GH. Mood and memory. *Am Psychol* 1981;**36**:129–148.
- Hooley JM, Gruber SA, Scott LA, Hiller JB, Yurgelun-Todd DA. Activation in dorsolateral prefrontal cortex in response to maternal criticism and praise in recovered depressed and healthy control participants. *Biol Psychiatry* 2005;**57**:809–812.
- Cueller AK, Johnson SL. Depressive symptoms and affective reactivity to maternal praise and criticism. *J Soc Clin Psychol* 2009;**28**:1173–1194.
- Mischel W. Convergences and challenges in the search for consistency. *Am Psychol* 1984;**39**:351–364.