Dissociations between Implicit and Explicit Self-Esteem in Previously Depressed Individuals: Rumination as a Potential Mediator

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ABSTRACT

Background: In contrast to cognitive theories of depression and research focusing on explicit self-esteem (SE), which emphasize negative self views among depression prone individuals, recent studies have demonstrated that previously depressed individuals have positive implicit SE compared to never depressed controls (e.g., Franck et al., 2008). The present study was designed to replicate and extend these findings by testing whether positive implicit SE in previously depressed individuals was the result of these individuals engaging in greater rumination involving either brooding or reflection.

Methods: A total of 61 previously depressed and never depressed undergraduate students completed self-report measures of trait rumination and SE, as well as the Implicit Association Test for SE.

Results: Previously depressed individuals reported negative explicit SE, t=2.02, p<.05, but experienced positive implicit self-esteem, t=1.97, p=.05, compared to never depressed participants (controlling for current depressive symptoms). Although previously depressed individuals also reported higher brooding and reflection compared to never depressed persons (p's<.01), Sobel tests failed to find evidence that the association between depression history and either implicit or explicit self-esteem was mediated by rumination (all ps > .23).

Conclusions: These findings suggest dissociations between implicit and explicit SE in vulnerability to depression, such that depression-prone individuals report relatively low explicit SE, but experience relatively high implicit SE.

BACKGROUND

Cognitive theories posit that negative beliefs about the self play an important role in the etiology of depression. Consistent with this perspective, considerable research has demonstrated that depressed and depression-prone individuals report lower explicit self-esteem compared to never depressed individuals (Roberts & Monroe, 1999). In contrast, recent studies have demonstrated that depression prone individuals experience higher implicit self-esteem than never-depressed individuals (Franck et al., 2008). While explicit SE refers to self-reported evaluation about one's competence and overall value as a person, implicit SE refers to automatic non-conscious evaluations of the self and is often assessed with the Implicit Association Test (IAT; Greenwald & Farnham, 2000), which examines how quickly individuals are able to associate the self with positive stimulus words compared to negative stimulus words.

The present study sought to replicate and extend research demonstrating elevated implicit SE in previously depressed individuals by examining if heightened self-focus in the form of rumination accounts for these differences. It is possible that rumination maintains activation of mental representations of the self, which in turn facilitates the association of the self with positive stimuli on the IAT for SE.

RESEARCH QUESTIONS

- Do previously depressed individuals report lower explicit SE, but higher implicit SE, compared to the never depressed?
- Does ruminative brooding or reflection mediate the association between depression history and implicit SE?

METHOD

Participants
- 28 previously depressed (15 male) college students
- 33 never depressed (22 male) college students

Measures

Patient Health Questionnaire-9 (PHQ-9; current and lifetime; Cannon, et al., 2007; Spitzer, Kroenke, & Williams, 1999). The PHQ-9 current is a 10-item self-report measure of current episodes of major depression. The PHQ-9 lifetime is a 12-item measure of previous episodes of major depression.

Rosenberg Self-esteem scale (RSE; Rosenberg, 1965) is a 10-item measure of explicit SE.

Self-Esteem Implicit Association Test (IAT; Greenwald & Farnham, 2000) is a modified version of the IAT (Greenwald et al., 1998) that measures the automatic associations made between the self vs. other and positive vs. negative valanced words on a computer. The task involved five steps. During each step the participant was presented with a series of stimuli that they categorized as quickly as possible into four categories: 'Me', 'Other', 'Good', 'Bad'. One set of stimuli consists of 'Me' and 'Other' stimuli, which was provided by idiographic information from the participant. Positive and negative valanced words were selected based on previous research for the 'Good' and 'Bad' categories (Greenwald & Farnham, 2000). Each of the 4 categories contained 8 items.

Ruminative Response Scale (RRS; Nolen-Hoeksema & Morrow, 1991) is a 22-item measure of trait rumination. The items are oriented toward focus on the self, symptoms of depression, and the consequences of those symptoms.

Procedures
- Participants completed the PHQ-9 (current and lifetime) during mass testing sessions. We recruited equal number of participants who endorsed a previous episode of depression and those who endorsed no previous episode.

- During individual laboratory sessions, participants completed the self-report measures (PHQ-9 current and lifetime, RSE, and RRS) and the self-esteem IAT administered on a PC computer

RESULTS

	Previously Depressed		Never Depressed		
	Mean	SE	Mean	SE	*t*
Current Depression	12.8	0.5	11.3	0.5	2.23*
Brooding[1]	8.2	2.3	10.3	2.0	2.70**
Reflection[1]	12.7	2.3	8.9	2.0	4.16***
Explicit SE[1]	72.4	5.3	76.7	4.7	2.02*
Implicit SE[1]	1.14	0.19	0.99	0.17	1.97, *p*=.05

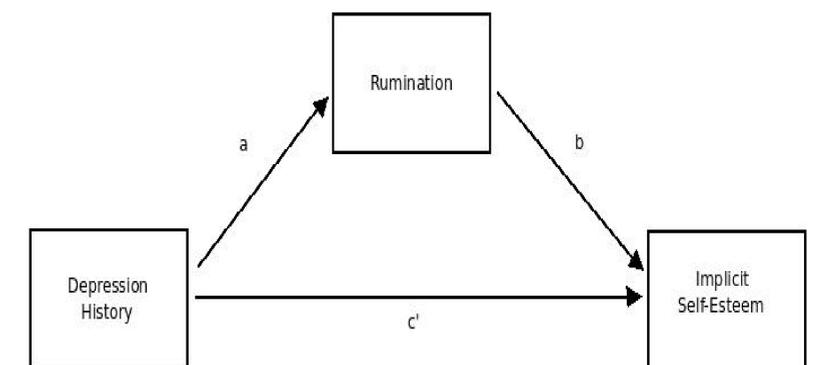[1] adjusted means controlling for current depressive symptoms
* *p*<.05, ** *p*<.01, *** *p*<.001

Correlation between implicit and explicit SE: *r*=.09, *p*=.48

Sobel Tests of Indirect Effects (mediation)

Ruminative Brooding: *z*= 0.73, *p*=.47

Ruminative Reflection: *z*= 0.54, *p*=.59

CONCLUSIONS

Our findings suggest dissociations between implicit and explicit SE in vulnerability to depression, such that depression-prone individuals report relatively low explicit SE, but experience relatively high implicit SE. In addition, previously depressed individuals reported relatively higher levels of both ruminative brooding and reflection. Importantly, these findings were obtained while statistically controlling for differences in subclinical depressive symptoms between previously depressed and never depressed individuals. However, inconsistent with our hypotheses, brooding and reflection did not mediate the association between depression history and implicit SE. Why then do previously depressed individuals experience relatively high implicit SE? One possibility is that the process of recovery from depression involves boosts to implicit self-evaluation; another is that elevated implicit SE arises from the contrast these individuals experience between their current state and the struggles they underwent in the past when they were seriously depressed. It remains for future research to explore these possibilities.