

Rumination Moderates the Effect of Self-Discrepancies on Depression Symptoms

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Background

Rumination refers to a maladaptive repetitive form of self-focused thinking that plays an important role in depression (Nolen-Hoeksema, 1990). Rumination has been implicated in the development of Major Depressive Disorder (MDD) by prolonging and amplifying depressive symptomatology (Nolen-Hoeksema, 1991; Nolen-Hoeksema et al., 1993; Nolen-Hoeksema et al., 1997).

According to Self-Discrepancy Theory (SDT) individuals develop self-guides based on characteristics they would like to possess (ideal-self), feel they ought to possess (ought-self), and fear they eventually might come to possess (feared-self). Discrepancies between characteristics that the individual perceives they possess (actual-self) and self-guides have been found to be associated with emotional distress (Higgins, 1987). Of most relevance to the present research, Papadakis et al. (2006) found that rumination moderates the effect of self-guides on emotional distress, such that discrepancies involving the ideal self are more strongly associated with depression among high compared to low ruminators.

The present study aims to replicate and extend the Papadakis et al. study by taking a more comprehensive perspective on self-guides. While the previous study focused on discrepancies involving the ideal and ought selves, the present study also examines whether rumination moderates the impact of feared self-guides. In addition, we explored the role of expectations and importance of attaining self-guides on depression symptoms. Expectations about achieving self-guides are relevant given that depressed persons make negative predictions about the future (Miranda & Mennin, 2007) and tend to view aversive outcomes as more likely to occur (Dickson & MacLeod, 2006). Finally, given the central role of avoidance motivation in depression, depressed individuals may view feared self-guides as more important compared to non-depressed persons.

Hypotheses

- Rumination will moderate the relationship between ideal and feared self-discrepancies and symptoms of depression. We expect high actual:ideal self-discrepancies to have a positive relationship with symptoms of depression and this relationship will be stronger among high ruminators. We expect high actual:feared self-discrepancies to have a negative relationship with symptoms of depression and this relationship will be stronger among high ruminators.

Hypotheses Continued

- Rumination will moderate the relationship between expectations of achieving ideal self-guides and feared self-guides and symptoms of depression. We expect high expectancies of achieving ideal self-guides to have a negative relationship with symptoms of depression and this relationship will be stronger among high ruminators. We expect high expectancies of achieving feared self-guides to have a positive relationship with symptoms of depression and this relationship will be stronger among high ruminators.
- Rumination will moderate the relationship between importance of achieving self-guides and symptoms of depression. We expect high ideal self-guide importance and feared self-guide importance to have a positive relationship with symptoms of depression. These relationships will be stronger among high ruminators.

Participants

- 102 undergraduate students (42 males).
- Age: $M=19.6$ years, $SD=2$, Range=18-27 years
- Race: Black/African American=14.7%, White/Caucasian=52.9%, Hispanic/Latino=5.9%, Asian=19.6% multi-racial=6.9

Measures

The Patient Health Questionnaire-9 (PHQ-9; current and lifetime) was administered to screen for a history of major depressive disorder (Cannon, Tiffany, Coon, Scholand, McMahon, and Leppert, 2007; Spitzer, Kroenke, & Williams, 1999).

The Revised Selves Questionnaire (Carver, Lawrence, & Scheier, 1999) was administered to measure self-discrepancies.

The Beck Depression Inventory II (BDI-II, Beck, Steer, & Brown, 1996) was administered to assess current depressive symptomatology.

The Rumination on Sadness Scale (RSS; Conway, Csank, Holm, & Blake, 2000) was administered to assess level of rumination.

Procedures:

1. Based on PHQ-9 (current and lifetime) scores from mass testing sessions, participants were recruited to reflect the full range of depressive symptoms.
2. Participants completed the Revised Selves Questionnaire, the BDI-II, and the RSS.
3. Participants were debriefed.

Data Analysis - Moderation

Table: Regression Results of moderation analyses
Dependent Variable= Depression Symptoms

Predictor Variable	β	t-value
Actual:Ideal Discrepancies x Rumination	-0.18	2.51*
Actual:Ought Discrepancies x Rumination	-0.08	1.18
Actual:Feared Discrepancies x Rumination	-0.00	0.03
Ideal Expectations x Rumination	-0.27	3.78***
Ought Expectations x Rumination	-0.15	1.85
Feared Expectations x Rumination	0.10	0.22
Ideal Importance x Rumination	0.05	0.56
Ought Importance x Rumination	0.02	0.83
Feared Importance x Rumination	0.16	2.07*

Note: * $p<.05$, ** $p<.01$, *** $p<.001$

Data Analysis – Simple Slopes

- Actual:Ideal self-discrepancies predicted depressive symptoms at high ($\beta=-0.52$, $p<.001$), but not at low levels of rumination ($\beta=-0.17$, $p=.08$).
- Ideal Expectations predicted depressive symptoms at high ($\beta=-0.53$, $p<.001$), but not at low levels of rumination ($\beta=0.02$, $p=.83$).
- Feared Importance predicted depressive symptoms at high ($\beta=0.27$, $p<.05$), but not at low levels of rumination ($\beta=-0.06$, $p=.63$).

Summary of Results

- To test our hypotheses we used OLS regression. All variables were standardized, which provides approximate standardized solutions for regression models that include higher-order interaction terms (Aiken & West, 1991).
- We replicated findings by Papadakis et al. (2006). Specifically, we found a significant interaction between actual:ideal discrepancies and rumination, such that discrepancies predicted symptoms of depression more strongly among high compared to low ruminators.
- We found a significant interaction between ideal self-guide expectancies and rumination, such that ideal self-guide expectancies predicted less depression among high, but not low, ruminators.

Summary of Results Continued

- Finally, we found a significant interaction between feared self-guide importance and rumination, such that importance predicted greater depressive symptoms among high, but not low, ruminators.

Conclusions

The current study expands upon previous findings suggesting that the degree to which self-discrepancies are associated with depression varies depending on the extent to which individuals tend to ruminate (Papadakis et al., 2006). Importantly, it appears that rumination not only amplifies the impact of discrepancies on depressive symptomatology, but it also moderates the impact of expectations of self-guide achievement in the future and the perceived importance each self-guide holds.

Consistent with previous findings (Papadakis et al., 2006), rumination moderated the relationship between actual:ideal discrepancies and symptoms of depression, such that this form of self-discrepancy was more strongly associated with elevated depressive symptoms among high compared to low ruminators. Rumination also moderated the association between ideal self-guide expectancies and symptoms of depression, such that low expectations of achieving ideal self-guides were associated with elevated symptoms of depression among high, but not low, ruminators. Finally, rumination moderated the association between feared self-guide importance and symptoms of depression, such that greater importance of feared self-guides was associated with elevated symptoms of depression among high, but not low, ruminators.

In contrast, rumination did not moderate the relationship between feared self-discrepancy, feared self expectancies, or ideal self guide importance and symptoms of depression. Future studies are needed to determine if such effects may be present in more severe forms of clinical depression.

There are several limitations to this research. As this is a correlational study, we cannot infer that symptoms of depression were caused by either self-discrepancies or rumination. Instead, it may be that depression leads to the development self-discrepancies and rumination. Further, our sample size is small and was composed of undergraduate college students. It is therefore important to determine whether these results generalize to clinical and community populations. In addition to using clinical and community samples, future research should examine these relationships with experimentally induced ruminative self-focus.