Individual differences in shame-proneness and trait rumination as predictors of depressive symptoms

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Abstract

Several studies showed that shame has a unique contribution to depressive symptoms. However, little is known about the mechanisms of this association. In this study we examined whether trait rumination moderates the relationship between shame-proneness and depressive symptoms. The results indicate that trait rumination is a significant moderator meaning that shame-prone individuals who ruminate frequently express more severe depressive symptoms. However, the explained variance in depressive symptoms increased only from 21% to 27% after taking into account the interaction effect, indicating that rumination potentiates to a little extent this association.

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Keywords: shame-proneness; emotion regulation; rumination; depressive symptoms; moderation analysis

1. Introduction

Until recently shame and guilt were considered to be similar emotions and thus these terms were often used interchangeably. Several studies show that shame and guilt are distinct emotions which differ along many dimensions (i.e. cognitive, affective, motivational; Ferguson, Stegge, & Damhuis, 1991). While guilt is considered to be less intense, involves self-evaluations which focus on specific behaviors and it is associated with a desire to reconcile, shame is considered to be more painful, involves global self-evaluations and it is associated with the

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doi:10.1016/j.sbspro.2014.03.255
desire to disappear and hide from others. The differentiation between shame and guilt was an important step in studying the clinical implications of these two emotions. Despite the fact that clinical conceptualizations of major depressive disorder includes guilt as an important feature, many studies indicate that shame-proneness is associated with depressive symptoms to the same or even to a greater extent (Andrews, Qian, & Valentine, 2002; Cheung, Gilbert, & Irons, 2004; Tangney, Wagner, & Gramzow, 1992). Moreover, when controlling for shared variance between guilt and shame, the correlation between guilt and depressive symptoms is low or not significant (Pineles, Street, & Koenen, 2006). These results are supported by a recent meta-analysis (Kim, Thibodeau, & Jorgensen, 2011) which showed that shame-proneness is correlated with depressive symptoms when controlling for guilt but “shame-free” guilt was uncorrelated with depressive symptoms. However, there are two types of guilt (contextual-maladaptive guilt and generalized guilt) which are correlated with depressive symptoms at a similar level as shame.

It is now clear that there is an association between shame-proneness and depressive symptomatology, and the important question now is which are the mechanisms of this relationship. A possible explanation is related to emotion regulation strategies. We refer to emotion regulation as defined by James Gross: „processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1998, p. 275). According to this model of emotion regulation, when faced with a situation which elicits a certain emotion the individual has different strategies which would allow him to regulate the emotion felt and its expressions. Several theoretical and empirical studies indicate that some of these emotion regulation strategies are adaptive (i.e., cognitive reappraisal, problem solving) while others are considered maladaptive (i.e., rumination, suppression, avoidance).

A recent meta-analysis showed that rumination and avoidance are the emotion regulation strategies that have the strongest association with depression, with large effect sizes (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Connecting shame and emotion regulation strategies, one study showed that the relationship between event-related shame and depression is mediated by rumination (Orth, Berking, & Burkhardt, 2006). Also, there is one study which indicates that self-rumination mediates the relationship between shame-proneness and personal distress (Joireman, 2004), and another in which rumination was a mediator between shame and depression, but shame had a unique contribution to depression even after controlling for rumination (Cheung et al., 2004). These results and those showing an association between shame and depression (Kim et al., 2011; Tangney et al., 1992) are arguments that rumination may be one of the mechanisms by which shame is associated with depressive symptoms.

However, the studies which investigated rumination as a mediator between shame and depression have some limitations. Although they propose rumination as a mediator some of them used trait measures to evaluate rumination and shame. This choice violates one of the assumptions of mediation which states that there should be a causal relationship (theoretical and methodological) between the independent variable (in this case shame or shame-proneness) and the proposed mediator (in this case rumination; see Baron & Kenny, 1986). As we also use trait measure of the two constructs in our study, we consider that it would be more justified to analyze a possible moderation effect of rumination on the relationship between shame-proneness and depressive symptoms. Our hypothesis is that the association between shame-proneness and depressive symptoms would be stronger for those who use more frequently rumination as an emotion regulation strategy.

2. Method

2.1. Participants

Eighty-two undergraduate students (8 males and 74 females) with ages ranging between 19 and 49 (m= 22.85, SD=4.9), participated in this study for extra credit.

2.2. Measures

Shame-proneness

We used the subscale assessing shame-proneness from the Test of Self-Conscious Affect-3 (TOSCA-3; Tangney, Dearing, Wagner, & Gramzow, 2000). This self-report measure employs a scenario-based approach in which respondents are presented with 16 different everyday situations and a series of possible reactions in each situation.
Participants are asked to rate each response on a five-point scale (1="not likely"; 5="very likely"). The scale has adequate psychometric proprieties with the shame-proneness subscale showing optimal reliability (Cronbach’s alpha=.77; Tangney & Dearing, 2002).

**Trait rumination**

We used the Ruminative Response Scale (RRS; Nolen-Hoeksema, Larson, & Grayson, 1999) which assesses the participants’ tendency to ruminate in response to their own symptoms of negative emotion. Respondents rated each item on a four-point scale (1="never or almost never", 4="always or almost always"). The scale has optimal internal consistency (Cronbach’s alpha=.90; Nolen-Hoeksema et al., 1999).

**Depressive symptoms**

We used a version of the Beck Depression Inventory-II (BDI-II) adapted on the Romanian population (Beck et al., 2012), assessing the presence and severity of depressive symptoms in the last 2 weeks. It is a well validated and widely used measure proving good psychometric properties (Cronbach’s alpha in the validation study for the general Romanian population is .89).

### 2.3. Procedure

Participants were taking part in a larger study investigating emotion regulation strategies. After reading and signing the informed consent, participants completed BDI-II at the beginning of an experiment which investigated the effect of two emotion regulation strategies on state shame. Upon completion of the experiment, participants were debriefed and thanked for their collaboration. The other two trait scales were e-mailed and completed online.

### 3. Results

Means and standard deviations for all variables are presented in Table 1. Shame-proneness significantly predicted depressive symptoms, unstandardized coefficient=.22, R²=.15, p<.01 When rumination was added in the model R² increased with .06, F (1, 76) = 6.27, p<.05. In order to see if trait rumination moderates the relationship between shame-proneness and depressive symptoms we used the procedure of Hayes & Matthes (2009) according to which a moderator proves itself as an interaction between the independent variable and the moderator in a model of the dependent variable. The results indicate a significant moderation effect, F (1, 75) = 6.39, p<0.05, with a R² increase due to interaction of .06. We further used the pick-a-point method to test the moderation effects at different levels of the moderator: mean and ± one standard deviation. The results showed that the conditional effect is significant at the moderator mean and one standard deviation above the mean. Results are displayed in Figure 1.

### 4. Discussion

This study shows that trait rumination is a significant moderator of the relationship between shame-proneness and depressive symptoms. Major depression is one of the most common and serious mental disorder and although both psychological and pharmacological evidence-based treatments for depression are available, their effectiveness is not as great as desired, as in many cases healing does not occur, and among those who respond to treatment relapses are common (National Institute for Clinical Excellence, 2010). In this context, a better understanding of the psychological factors involved in the etiology of depression that could further allow for the development of effective interventions is highly needed. This study suggests that depressive symptoms could be approached by tackling the structures that predispose to shame (i.e. global attributions) or by teaching more adaptive emotion regulation strategies and reducing dysfunctional strategies like rumination. In other words, it is possible to reduce the negative effects of shame either by reducing shame-proneness or by acting at the level of the moderating mechanisms, for example raising awareness of ruminative processes and interrupting them.
Despite the fact that we found a significant moderation effect the explained variance in depressive symptoms increased only from 21% to 27% after taking into account the interaction effect. This suggests that the relation between shame-proneness and depression symptoms is just to a little extent potentiated by the use of rumination. Yet, other variables could have similar roles and could bring more predictive power in explaining the same association. For example, De Rubeis & Hollenstein (2009) showed that avoidant coping fully mediated the longitudinal relationship between shame-proneness and depressive symptoms at one-year follow-up. Future studies should investigate the effect of other emotion regulation strategies like avoidance and suppression on the relationship between shame and depression.

Our study has clear limitations. A first limit concerns the correlational nature of this research which do not allows us to draw causal conclusions regarding the relationship between these psychological constructs. Most studies to date that have investigated the relationship between shame and depression were correlational and very few of them have used longitudinal designs. One such study is that of Andrews and collaborators (2002) showing that experienced shame predicts depressive symptoms three months later.

Future experimental and longitudinal studies are needed in order to clarify the direction of these associations. Another limitation comes from the fact that we used a convenience sample consisting of students. This limit does not allow us to draw conclusions about the nature of this relationship in the case of clinical samples and future studies should investigate the role of shame-proneness and rumination in patients diagnosed with major depression.
5. Conclusion

This study showed that trait rumination is a significant moderator of the relationship between shame-proneness and depressive symptoms meaning that shame-prone individuals who ruminate frequently express more severe depressive symptoms. However, the increase in explained variance was small (from 21% to 27%) suggesting that trait rumination potentiates to a little extent the association between shame and depressive symptoms. Further studies should investigate the role played by other emotion regulation strategies in this relationship.

Acknowledgements

This research was financially supported by the Sectorial Operational Program for Human Resources Development 2007-2013, co-financed by the European Social Fund, under the project POSDRU/107/1.5/S/76841, with the title „Modern Doctoral Studies: Internationalization and Interdisciplinarity”, for Silviu-Andrei Matu.

References


