

Rumination and Aggression In a Non-Clinical Adolescent Sample

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INTRODUCTION

• Rumination is a cognitive process involving repetitive, intrusive and aversive thoughts. Given that sadness rumination intensifies depressive symptoms (Morrow & Nolen-Hoeksema, 1990) and that anger rumination is associated with increased anger and aggression (e.g., Bushman et al., 2005), rumination can be regarded as a maladaptive emotion regulation strategy (Broderick & Korteland, 2002).

• We examined anger rumination and sadness rumination in a university sample of older adolescents, thereby extending our previous research that focused on a sample of clinic-referred youth (Peled & Moretti, 2007).

• **HYPOTHESES:** We predicted that anger rumination, controlling for sadness rumination, would be uniquely related to anger, relational aggression, and overt aggression. Sadness rumination but not anger rumination was expected to be associated with depression.

METHOD

PARTICIPANTS were 150 adolescents (105 females, 45 males) between the ages of 17 and 19 years ($M = 18.2$) enrolled in introductory psychology courses at Simon Fraser University.

MEASURES. *Sadness and Anger Rumination Inventory (SARI).* We developed the SARI that consists of 11 analogous items for each type of rumination (5-point scale, *never to always*). The words *angry* and *anger* in the anger rumination measure are replaced with *sad* and *sadness* in the sadness rumination measure. The SARI has good criterion-related validity and enables examination of both forms of rumination using a methodology that minimizes measurement variance (Peled & Moretti, 2007).

The Form-Function Aggression Measure (Little et al., 2003) is a self-report measure (4-point scale, *not at all to completely*) that enables independent examination of the forms of aggression (overt and relational) and its functions (instrumental and reactive). Internal consistency in this study was acceptable for **overt aggression** (Cronbach's alpha = .75) and **relational aggression** (alpha = .86).

Depression was measured using seven items from the depression scale of the *MMPI-2* (*true or false*). All items loaded onto one factor, and internal consistency was acceptable (alpha = .83).

Anger was assessed with the well-validated *STAXI*. Four items (4-point scale, *almost never to almost always*) were adopted from the Angry Temperament subscale of the Trait Anger scale. All items loaded onto one factor, and internal consistency was acceptable (alpha = .81).

RESULTS

Factor analysis indicated that items from the analogous rumination measures loaded onto two separate factors tapping anger rumination and sadness rumination. Two composite scores were created by summing the sadness rumination items (Cronbach's alpha = .91) and the anger rumination items (alpha = .91).

Structural equation modeling confirmed unique relations for anger rumination predicting anger and aggression, and sadness rumination predicting depression. **Results supported predictions of outcome specificity.**

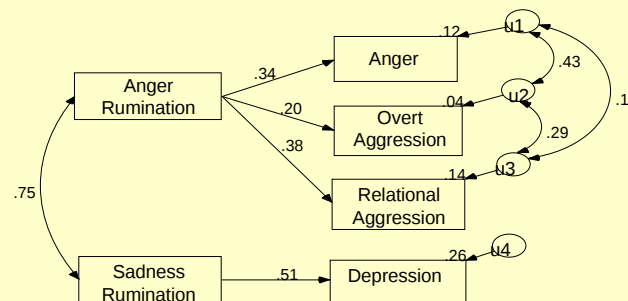
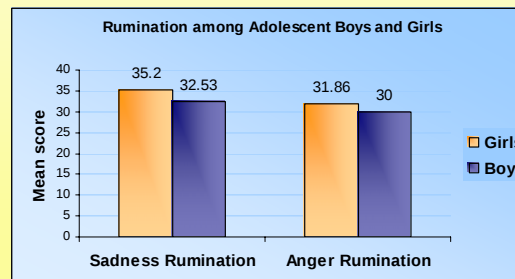


Figure 1. Rumination model. RMSEA= .00. χ^2 (7, N = 150) = 5.1, $p = .65$.

There was a trend toward girls scoring higher than boys on sadness rumination, $t(148)=1.75$, $p=.08$. Males and females reported comparable levels of anger rumination, $t(148)=1.25$, $p=.21$.



DISCUSSION

The goal of this study was to assess if anger rumination and sadness rumination have distinct emotional and behavioral associations in a non-clinical sample. This research extends previous research on high-risk adolescents (Peled & Moretti, 2007), and results were consistent with those from our previous study.

When shared variance was controlled, anger rumination but not sadness rumination positively predicted feelings of anger, relational aggression and overt aggression. These findings were consistent with the hypotheses and with previous research demonstrating a link between anger rumination and anger (Bushman, 2002; Rusting & Nolen-Hoeksema, 1998), and anger rumination and aggression (e.g., Maxwell, 2004). The current findings extend previous research by demonstrating the unique relation of anger rumination (i.e., controlling for sadness rumination) with relational and overt aggression in a non-clinical adolescent sample.

Results also confirmed that sadness rumination but not anger rumination predicted depression, when the two forms of rumination were covaried. These findings replicate previous research (Gilbert et al., 2005) and extend the field by demonstrating the specificity of sadness rumination to depressive symptoms even when analogous rumination measures are used.

Future research on rumination should routinely distinguish between types of rumination, and measure distinct associations for each. Doing so will provide greater insight into the antecedents and correlates of specific forms of rumination, and their effects on development and mental health throughout the lifespan.