

Rumination on Anger and Sadness: Specificity of Outcomes, Gender Differences and Implications for Healthy Adjustment

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ABSTRACT

Individuals who ruminate are at higher risk for health-related problems, yet research to date has failed to assess the specificity of different types of rumination with unique psychological and behavioural outcomes. The current study examined whether rumination on anger and sadness lead to distinct outcomes. Results indicated that although both forms of rumination were strongly correlated, items from the anger and sadness rumination measures loaded onto separate factors, tapping anger rumination and sadness rumination respectively. As expected, anger rumination but not sadness rumination predicted anger and aggression; sadness rumination but not anger rumination predicted depression. Women engaged in more sadness rumination than did men, whereas women and men engaged in comparable levels of anger rumination. Gender did not moderate the relations between rumination and the predicted outcomes. Results confirm the unique role of each type of rumination in relation to specific outcomes. Directions for future research on rumination, gender and health are discussed.

INTRODUCTION

Rumination refers to conscious, repetitive thoughts that revolve around a common theme. Many studies have been conducted on sadness rumination and its associated outcome of depression (e.g., Morrow & Nolen-Hoeksema, 1990), whereas a dearth of ecologically-valid research exists on anger rumination and its consequences. Further, rumination on anger and sadness have, to date, not been examined within the same study.

Sadness rumination has been defined as “repetitive thoughts concerning one’s present distress and the circumstances surrounding the sadness” (Conway et al., 2000, p. 404). A finding that holds for both adolescents (Broderick & Korteland, 2002) and adults (Nolen-Hoeksema & Jackson, 2001) is that females ruminate on sadness more than do males. Starting at a young age, girls may be reinforced and encouraged to ruminate on sadness whereas boys may be encouraged to distract (e.g., Zahn-Waxler et al., 1991).

Anger rumination has been conceptualized as the tendency to repeatedly think about anger, which may be partially responsible for the maintenance and intensification of anger (Sukhodolsky et al., 2001). Anger rumination exacerbates an angry mood (e.g., Bushman, 2002;), and some studies suggest that anger rumination predicts aggression (Caprara, 1986; Collins & Bell, 1997). However, further ecologically-valid research needs to be conducted using measures with acceptable construct validity. Rusting and Nolen-Hoeksema (1998) found that provoked men engaged in comparable levels of anger rumination and distraction, whereas provoked women engaged in more distraction than anger rumination. Beginning in infancy, girls are often discouraged from expressing anger (e.g., Zahn-Waxler et al., 1991), and as a result may experience anger as unacceptable and thus engage in anger distraction.

HYPOTHESES

When controlling for shared variance between the two forms of rumination, anger rumination but not sadness rumination was expected to predict anger, relational aggression and overt aggression.

Sadness rumination but not anger rumination was expected to predict depression.

Women were expected to demonstrate more sadness rumination compared to men, as has been found in previous research.

Men were expected to demonstrate more anger rumination compared to women.

We assessed whether gender moderated the relations between rumination and the predicted outcomes.

METHOD

PARTICIPANTS were 226 undergraduate students (155 females and 71 males) who ranged in age from 17 to 45 years ($M = 19.7$ years).

MEASURES. *Rumination on Anger and Sadness Questionnaires.* Two parallel scales, containing 11 items each, were devised by adopting items from Conway et al.’s (2000) Rumination on Sadness Scale (RSS) and Sukhodolsky et al.’s (2001) Anger Rumination Scale (ARS). The questionnaires contain analogous items, with the words *angry* and *anger* in the anger rumination measure replaced with *sad* and *sadness* in the sadness rumination measure.

The Integrated Measurement Framework of Aggression (Little et al., 2003) is a 25-item self-report that was used to measure overt and relational aggression.

Anger. Six trait-anger items from the State-Trait Anger Expression Inventory (STAXI; Spielberger, 1988) were summed to produce an anger score for each participant.

Depression. Seven items pertaining to depression were adapted from the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Three items on suicidality were also included. Participants answered *true* or *false*, and a total depression score was obtained by summing all ten items.

PROCEDURE. The order of questionnaires was randomized for each participant. The study took approximately 35 minutes to complete.

RESULTS

Only anger rumination predicted anger $F(1, 221) = 6.09$, $p = .01$., and relational aggression, $F(1, 221) = 13.26$, $p < .001$. Anger rumination and gender (i.e., being male) independently predicted overt aggression, $F(1, 221) = 12.9$, $p < .001$ and $F(1, 221) = 8.56$, $p < .01$, respectively. Only sadness rumination predicted depression. $F(1, 221) = 21.19$, $p < .001$. **Results supported predictions of outcome specificity.**

Contrary to predictions, there was no significant difference in anger rumination between women ($M = 31.83$; $SD = 8.10$) and men ($M = 29.99$; $SD = 8.30$), $t(224) = 1.57$, $p = ns$. As expected, women ($M = 34.53$; $SD = 8.68$) scored higher than men ($M = 31.93$; $SD = 8.24$) on sadness rumination, $t(224) = 2.12$, $p = .04$.

Gender did not moderate the relations between rumination and the predicted outcomes. **The processes of anger rumination and sadness rumination were not gendered inasmuch as their effects were comparable for females and males.**

DISCUSSION

Findings supported the notion that rumination on anger and sadness are distinct processes with unique emotional and behavioral outcomes. Women engaged in more sadness rumination than did men, whereas men and women engaged in comparable levels of anger rumination. Future studies could assess whether gender differences in anger rumination exist in other populations, such as in clinical settings where females may exhibit more overt aggression than in normative samples.

Future studies also could examine ways to reduce rumination. Mindfulness-based cognitive therapy (MBCT) has shown promising results in reducing sadness rumination and depression (Ma & Teasdale, 2004). Perhaps certain components of MBCT could help decrease anger rumination and aggression. It will be paramount to assess whether gender-specific interventions are required to reduce rumination and to foster healthy outcomes for males and females.