# Consequences of rumination and gratitude on affect

<u>Life</u>



Mental health is an important part of one's overall well-being, and a strong predictor of ability to cope with stress and hassles. There is some evidence that having a more positive mood, even during times of stress, can improve life satisfaction. The field of Positive Psychology has long stressed the idea that gratitude can lead to more positive mood and longer-lasting benefits. Sansone and Sansone (2010) defined gratitude as the appreciation of what is important and meaningful to oneself and represents a sense of thankfulness.

Researchers suggest that practicing gratitude-inducing techniques helps increase positive mood and well-being, leading to overall improved life satisfaction and happiness.

Although gratitude is one possible response to life's circumstances, some people ruminate instead. Nolen-Hoeksema and Morrow (1993) defined rumination as thoughts that focus attention on one's symptoms of depression and the consequences and after-effects of these symptoms. Ruminating on one's circumstances and depressive symptoms can lead to an increase in depression and negative mood. It is important to understand how these coping strategies can lead to higher negative mood and lower positive mood so that more appropriate and useful techniques can be used in the future.

## Rumination

Previous research has suggested that rumination can lead to more negative mood in depressed people. In one study, participants were categorized as depressed or nondepressed based on a pre-test depression survey, and then randomly assigned to either a rumination or a distraction condition (Nolen-Hoeksema & Morrow, 1993). In the rumination condition, participants were https://assignbuster.com/consequences-of-rumination-and-gratitude-onaffect/ asked to think about things that were symptom, emotion, and self-focused like " the possible consequences of the way you feel." In the distraction condition, participants were asked to focus their thoughts on external things like " two birds sitting on a tree branch." After the testing conditions, they were given a post-test questionnaire that measured level of depressed mood. The researchers hypothesized that depressed participants would maintain or have an increase in depressed mood when performing the

rumination task, and that the distraction task would decrease their depressed mood. Also, neither the rumination nor the distraction tasks would have significant effects on nondepressed participants' moods.

In line with their hypothesis, Nolen-Hoeksema and Morrow (1993) found that rumination tasks increased depressed mood in depressed subjects, and distraction tasks lowered their depressed mood to be equal to those with no baseline depression. Therefore, rumination tasks increase depressed mood and distraction tasks relieve it. Also, in nondepressed subjects, there was no change in depression levels in either the rumination or distraction tasks. This relates to my prediction that rumination leads to higher negative affect in depressed participants and does not change affect in nondepressed participants. Our study will fill a gap in the literature by also examining effects of rumination on positive affect.

In a correlational study, participants' depression levels were measured and then they were assessed over a two-day period, 12 hours per day (Huffziger, Ebner-Priemer, Koudela, Reinhard, & Kuehner, 2012). On the first day, they were asked throughout the day (about every hour) to rate their level of selffocus (" at the moment I am thinking about my feelings/problems") and to rate their mood (how agitated or calm, unwell or well). On the second day, participants went about their normal day in their natural environment, but were reminded by experimenters via a phone-like device to focus their attention on ruminative statements (" think about the way you feel inside", " think about the possible consequences of the way you feel") for 3 minutes at a time throughout the day, about 10 assessments. Afterward, they were asked to rate their current levels of self-focus and mood. The researchers hypothesized that rumination would predict higher immediate ruminative self-focus and lower mood. They also predicted that those high in depression would have even larger effects, and rumination would be related to longerterm changes in affect and self-focus.

The researchers found that rumination led to an immediate increase in selffocus and decrease in positive mood. They also found that nondepressed participants were also affected by rumination. They explained that this could be because they were in a natural state rather than in a lab and that more research would need to be done. They did not find longer-term effects of rumination in the hours following the experiment. This relates to my hypothesis that rumination leads to higher negative affect in depressed people. The finding that rumination also leads to higher negative affect in nondepressed people can be explained away by experimental design and small sample size.

## Gratitude

Past research on gratitude has suggested that gratitude can lead to higher positive mood. In one study, participants were randomly assigned to a gratitude condition or a control condition (Toepfer, Cichy, & Peters, 2012). Participants in the experimental group (gratitude condition) completed questionnaires weekly for four weeks. The questions assessed life satisfaction, gratitude, happiness, and depressive symptoms. During the second, third, and fourth week they also wrote letters of gratitude to an individual with the knowledge that the letters would be mailed at the end of the study. The control group completed the same questionnaires during week one and four, but they did not write letters. The researchers hypothesized that writing letters of gratitude would increase life satisfaction, gratitude, and happiness, and decrease depressive symptoms.

The researchers found that in the gratitude group (letter writers), happiness and life satisfaction increased significantly and had a cumulative effect after each letter. There was no change in happiness or life satisfaction in the control group. The letter writers also had a significant decrease in depressive symptoms. Gratitude levels did not change in either group. This relates to my hypothesis that gratitude will lead to higher positive affect and lower negative affect. While this study did not separate participants as depressed and nondepressed, I predict that the same findings will apply to people who are depressed.

In another study, participants were randomly assigned to a gratitude group, a hassles group, or a downward social comparisons group (Emmons &

McCullough, 2003). In the gratitude group, participants were also asked to think back over the last week and write down five things that they were grateful or thankful for. In the hassles group, participants were asked to think back over the day and list up to five hassles that occurred in their life. In the downward social comparisons group, participants were asked to think about ways in which they are better off than others, including things they have that others do not. After completing the assigned tasks for their condition, participants were asked to keep daily records for 16 days about positive and negative moods and health habits (such as number of minutes spent exercising, number of caffeinated or alcoholic beverages consumed, number of pain medications taken, number of hours slept and sleep quality). They were also asked daily if they had helped someone by providing emotional support or help with a problem. The researches predicted that exercises focusing on gratitude would lead to heightened well-being and increased positive affect, relative to focusing on hassles or neutral life

events.

Emmons and McCullough (2003) found that participants in the gratitude group had a larger increase in positive affect than the hassles group, and the social comparison group did not have a change in positive affect. They found that there was no difference in negative affect between the gratitude group and the hassles group. Those in the gratitude group were also more likely to have offered emotional support or helped someone with a problem than those in the hassles or social comparison group. There was no difference in physical health issues (such as time exercising, sleep amount and quality, alcohol, pain medication, and caffeine intake) between the three groups. This https://assignbuster.com/consequences-of-rumination-and-gratitude-onaffect/

Page 7

corresponds with my prediction that gratitude would lead to higher positive affect than rumination, and I predict that these findings will apply to depressed people as well.

In a study by Seligman, Steen, Park, and Peterson (2005) participants were recruited on the internet and randomly assigned to a gratitude condition or a control condition. All participants completed pre-test questionnaires to rate their depression symptoms and happiness levels. The sample was on average mildly depressed as the recruiting website was marketing a selfhelp book designed to increase happiness and people interested in that book were probably experiencing some level of depression. In the gratitude condition, participants were given one week to write and send a letter of gratitude for a person who had helped them in some way and never been properly thanked. The control group journaled about their early memories every night for one week. Follow up tests occurred immediately after completion of the task, at one week, one month, three months, and six months to see if effects remained long-term. The experimenters hypothesized that gratitude would increase happiness and decrease depressive symptoms.

The researchers found that the gratitude condition had a large increase in happiness for one month, with higher happiness levels for up to three months when the levels went back to the pre-test levels. Depression symptoms were significantly lowered in the gratitude condition immediately after completing the task and continued to be lower than pre-test levels for three months. In the control condition, participants were happier and less

Page 8

depressed at the immediate post-test but returned to baseline levels at the one-week post-test. This relates to my hypothesis that gratitude leads to higher positive affect (happiness) and lower negative affect in both depressed and nondepressed people.

## The Current Study

In the current study, depressed and nondepressed participants were randomly assigned to a rumination or gratitude condition to measure the effects on positive and negative affect. As suggested by Nolen-Hoeksema and Morrow (1993), I predicted that people high in depression would have higher negative affect in the rumination condition than in the gratitude condition, while nondepressed people would show no difference in negative affect in either the rumination or gratitude conditions. I also predicted that, regardless of baseline depression level, people would have higher positive affect in the gratitude condition than in the rumination condition.

## Method

### Participants

The study consisted of 198 participants who were students at California State University, East Bay who were enrolled in Introductory Psychology. Ages ranged from 18 to 46 years (M = 19. 58, SD = 2. 68). Sex of participants was 28. 3% male and 71. 7% female. Ethnicity of participants was 35. 4% Hispanic/Latino, 21. 2% Asian, 17. 2% Black/African American, 11. 1% White/Caucasian, 3. 5% Hawaiian/Pacific Islander, 10. 1% More than one, and 1. 5% Other. Participants were given 1 credit towards fulfilling their experimental requirements for completing the study.

#### Materials and Procedure

Participants were told that the experiment would focus on the processes of imagination, daydreaming, cognition, and personality. They were informed that the study would take about 50 minutes and would consist of questionnaires in which they would have to visualize or imagine certain scenes and situations. They were informed that they would be given one credit towards their course requirement for participating in the study and had the right to stop at any time with no penalty. Participants were then moved to individual computer lab rooms to complete the study online.

In the beginning of the study, participants were given the Beck Depression Inventory-II (BDI-II) developed by Beck, Steer, and Brown (1996) to rate their baseline depression levels and categorize participants as depressed and nondepressed. The BDI consists of 20 groups of statements and participants were asked to pick one statement from each group that best described how they had been feeling for the past two weeks. Statements included " Sadness: (0 points) I do not feel sad, (1 points) I feel sad much of the time, (2 points) I am sad all the time, or (3 points) I am so sad or unhappy that I can't stand it." Higher scores indicated higher levels of depression (M = 12. 89, SD = 7. 96). Nondepressed participants were categorized by scores of 0-13 points on the BDI-II and depressed participants were categorized by scores 14 points and above on the BDI-II (n = 116 nondepressed, n = 82 depressed).

Participants were then given the Affect-Adjective Scale (Diener & Emmons, 1985) to measure pre-test positive and negative affect. The scale consists of a list of 27 emotional states that lie in the positive or negative range (such https://assignbuster.com/consequences-of-rumination-and-gratitude-onaffect/ as thankful, enthusiastic, frustrated, and discouraged), and participants were asked to rate on a scale from 1 to 7 (1 being not at all and 7 being extremely) how they would describe themselves in relation to each emotional state at that very moment. Positive affect was measured by combining Happy, Pleased, Joyful, Enjoyment/Fun (Pre-test: Cronbach's  $\alpha = .$ 89, M = 3. 59, SD = 1. 49), and negative affect was measured by combining Sad, Depressed/Blue, Unhappy, Worried/Anxious, Frustrated, and Angry/Hostile (Pre-test: Cronbach's  $\alpha = . 87$ , M = 2. 17, SD = 1. 17). Baseline levels of positive and negative affect were recorded pre-test and again after the experimental condition. After completing the pre-test procedures, participants were given filler tasks to conceal the main purpose of the study and avoid biased data before being randomly assigned to a rumination (n = 99) or gratitude condition (n = 99).

Rumination. In the rumination condition, as previously outlined by Nolen-Hoeksema and Morrow (1993), participants were asked to read a list of ideas and focus their attention, being sure to really concentrate on and visualizing each item. The items were relatively neutral but could be interpreted as negative for some individuals. Some of the items included " Think about: the physical sensations you feel in your body," " Think about: why you react the way you do," " Think about: the possible consequences of your mental state."

Gratitude. In the gratitude condition, the procedure was adapted from being relatively neutral or even negative, to being focused on positive and grateful feelings. Participants were asked to read a list of ideas and focus their

attention on each one, visualizing and concentrating on each. Some of the questions included "Think about: a time when you felt moved by the actions of another person," " Think about: someone who did something unexpected for you," and "Think about: a compliment you received about your personality."

After completion of the experimental conditions, participants were asked again to complete the Affect-Adjective Scale (Diener & Emmons, 1985) to measure positive and negative affect post-test (Post-test Positive Affect: Cronbach's  $\alpha$  = . 92, M = 3. 80, SD = 1. 57; Post-test Negative Affect: Cronbach's  $\alpha$  = . 88, M = 1. 98, SD = 1. 11). Participants were given a survey to collect demographic information and then debriefed, with the true purpose of the study revealed. Participants were also asked not to talk to their friends or classmates about the purpose of the study to ensure that future participants were not informed beforehand.

#### Results

Controlling for pre-test positive affect, I conducted a 2 x 2 (Condition [rumination, gratitude] x [Depression level [depressed, nondepressed]) factorial ANCOVA on post-test positive affect. As predicted, I found a main effect of condition on positive affect such that the gratitude condition reported higher positive affect (M = 4.07, SE = 0.09) than the rumination condition (M = 3. 53, SE = 0. 09), F(1, 193) = 17.04, p < . 001,  $\eta p 2 = .08$ . I did not find a main effect of depression level on positive affect (depressed: M = 3. 80, SE = 0. 10; nondepressed: M = 3. 79, SE = 0. 09), F(1, 193) = .003, p = .96, np2 = .00. I did not find an interaction on positive affect such that the effect of condition did not vary by level of depression

https://assignbuster.com/consequences-of-rumination-and-gratitude-onaffect/

(depressed/rumination: M = 3.50, SE = 0.16; depressed/gratitude: M = 4. 10, SE = 0.13; nondepressed/rumination: M = 3.56, SE = 0.11; nondepressed/gratitude: M = 4.03, SE = 0.13), F(1, 193) = .27, p = .61,  $\eta p 2 = .001$ . This supports my hypothesis that positive affect would be higher in the gratitude condition than the rumination condition regardless of baseline depression level.

Controlling for pre-test negative affect, I also conducted a 2 x 2 (Condition [rumination, gratitude] x [Depression level [depressed, nondepressed]) factorial ANCOVA on post-test negative affect. I found a main effect of condition on negative affect such that the rumination condition reported higher negative affect (M = 2.17, SE = 0.07) than the gratitude condition (M = 1.84, SE = 0.06), F(1, 193) = 13.01, p < .001, np2 = .06. I found a main effect of depression level such that depressed people reported higher negative affect (M = 2.11, SE = 0.08) than nondepressed people (M = 1. 90, SE = 0.06), F(1, 193) = 3.86, p = .05, np2 = .02. I did not find an interaction on negative affect such that the effect of condition did not vary by level of depression (depressed/rumination: M = 2.33, SE = 0.11; depressed/gratitude: M = 1.89, SE = 0.10; nondepressed/rumination: M =2. 01, SE = 0. 08; nondepressed/gratitude: M = 1.79, SE = 0. 09), F(1, 193) = 1. 34, p = .25, np2 = .01. Contrary to my prediction that condition would only be significant among depressed people, it was significant for depressed and nondepressed people.

## Discussion

This study showed that for both depressed and nondepressed people, rumination led to higher negative affect and lower positive affect and gratitude led to lower negative affect and higher positive affect. This was consistent with my hypothesis in regard to gratitude, that gratitude would lead to lower negative affect and higher positive affect regardless of baseline depression levels. However, this was contrary to my hypothesis that negative affect would be higher and positive affect would be lower only in depressed people.

Contrary to my predictions, the results of the study mirrored those of Huffziger et al. (2012), in which rumination led to higher negative affect and lower positive affect in both depressed and nondepressed participants. The researchers suggested that this finding could be because they were not conducting the study in a lab, but it may be that these findings are actually more in line with real-life experiences. These findings are also contrary to the results found by Nolen-Hoeksema and Morrow (1993), in which rumination only increased depressed mood (negative affect) in depressed participants. I found that rumination led to higher negative affect and lower positive affect regardless of baseline depression levels. It seems that rumination tasks designed to be neutral may elicit negative interpretations in individuals regardless of baseline depression levels; perhaps their self-reflective nature can turn negative if they are not framed to be overtly positive. Gratitude tasks may also elicit positive emotions in most people, regardless of depression levels.

Page 14

In line with Toepfer et al. (2012), the study indicated that gratitude leads to higher positive affect and lower negative affect. Our study suggests that these findings are also applicable to depressed people. This is also consistent with the findings of Seligman et al. (2005). It appears gratitude exercises improve mood for most people, possibly by focusing on a more positive outlook.

## **Limitations and Future Directions**

Although we attempted to make the study as sound as possible, there were some flaws that may have influenced the results. The sample was a student sample featuring mostly young adults, and there should be future studies of different age ranges and education levels. Perhaps older people would not view the rumination task as negative, but rather more neutral, as intended. The study was also mostly women, with only 28. 3% male participants. A more evenly distributed sample could show if these results apply to both genders and not just mostly women. Perhaps men would have been less negatively influenced by rumination as women may focus more on their negative traits than men. The study also only consisted of psychology students and because of their knowledge of related topics and concepts, they may have been able to identify the true purpose of the study or answer the questions in the ways that they suspect the researchers wanted. A broader sample including many different majors should be conducted. In general, future studies broadening the sample could help show if the results apply to the general population.

There were also some flaws in the delivery of the study that could have influenced the results. The researchers were different for each trial and perhaps these small differences in personality and the way they explained the instructions altered the way participants responded in the study; it's possible these differences changed the ways in which the participants understood the study and the instructions for completing the study accurately. Future studies using the same researchers for every trial to ensure there were no changes across trials would be more accurate. Also, some of the computer lab rooms were different from each other, including different chairs (with different levels of comfort) and some having windows which could have affected mood and introduced unsystematic variability into the study. Future studies with a more uniformly designed lab would be more solid.

There were also some flaws in the design of the study that could have swayed the results and interpretations. This study was very short-term, with gratitude and rumination procedures practiced for only 8 minutes. It would be interesting to see a future study in which the experimental conditions were longer or repeated several times to see effects of ruminating or practicing gratitude on negative and positive affect long-term. The study was also pretty artificial in a lab setting, so future studies could use more naturalistic procedures that people would be more likely to use in their daily lives, like gratitude journals or writing letters. It might be interesting to see how letter writing and journaling differ in their effects on gratitude. Perhaps letter writing shows higher increases in positive affect than journaling, or even longer-term effects.

https://assignbuster.com/consequences-of-rumination-and-gratitude-onaffect/

## Conclusion

Although further work is needed to gain a better understanding of the effects of rumination and gratitude on positive and negative mood, my findings indicate that rumination leads to higher negative affect and lower positive affect, and gratitude leads to higher positive affect and lower negative affect. This study evidenced that rumination tasks may still elicit negative emotions and gratitude tasks elicit positive emotions, regardless of baseline depression levels. It is important to understand how these strategies can lead to higher negative mood and lower positive mood so that more appropriate and useful techniques can be used in the future. These techniques could even be used to minimize depression symptoms and improve overall mental health.

## References

- 1. Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Manual for Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation.
- Diener, E., & Emmons, R. A. (1985). The independence of positive and negative affect. Journal of Personality and Social Psychology, 47, 1105-1117.
- Emmons, R. & McCullough, M.(2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. Journal of Personality and Social Psychology, 84(2), 377-389.
- 4. Huffziger, S., Ebner-Priemer, U., Koudela, S., Reinhard, I., & Kuehner, C.(2012). Induced rumination in everyday life: Advancing research

approaches to study rumination. Personality and Individual Differences, 53(6), 790-795.

- Nolen-Hoeksema, S. & Morrow, J. (1993). Effects of rumination and distraction on naturally occurring depressed mood. Cognition and Emotion, 7(6), 561-570
- 6. Sansone, R. A., & Sansone, L. A. (2010). Gratitude and well being: the benefits of appreciation. Psychiatry (Edgmont), 7(11), 18-22.
- 7. Seligman, M. (E. P)., Steen, T. A., Park, N., & Peterson, C. (2005).
  Positive psychology progress: Empirical validation of interventions.
  American Psychologist, 60 (5), 410-421.
- Toepfer, S., Cichy, K., & Peters, P. (2012). Letters of gratitude: Further evidence for author benefits. Journal of Happiness Studies, 13(1), 187-201.