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# The effects of mood on state rumination

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## Abstract

Theory posits that individuals who are depressed exhibit unduly negative thinking processes, one of which is rumination. A body of literature has linked rumination to mood. It is currently unclear whether negative mood may precede ruminative thinking, and the current study is utilizing an experimental design to address this gap in the literature. Participants are randomly assigned to experience either a negative mood induction procedure or a neutral word task. The level of ruminative thinking expressed during think-aloud procedures before and after the neutral task or mood induction will be coded and analyzed to determine whether there are differences between the groups in rumination change scores. It is hypothesized that individuals who experience the negative mood induction will have significantly higher rumination change scores than those in the control group. Implications of the study and future research is discussed.

## Background

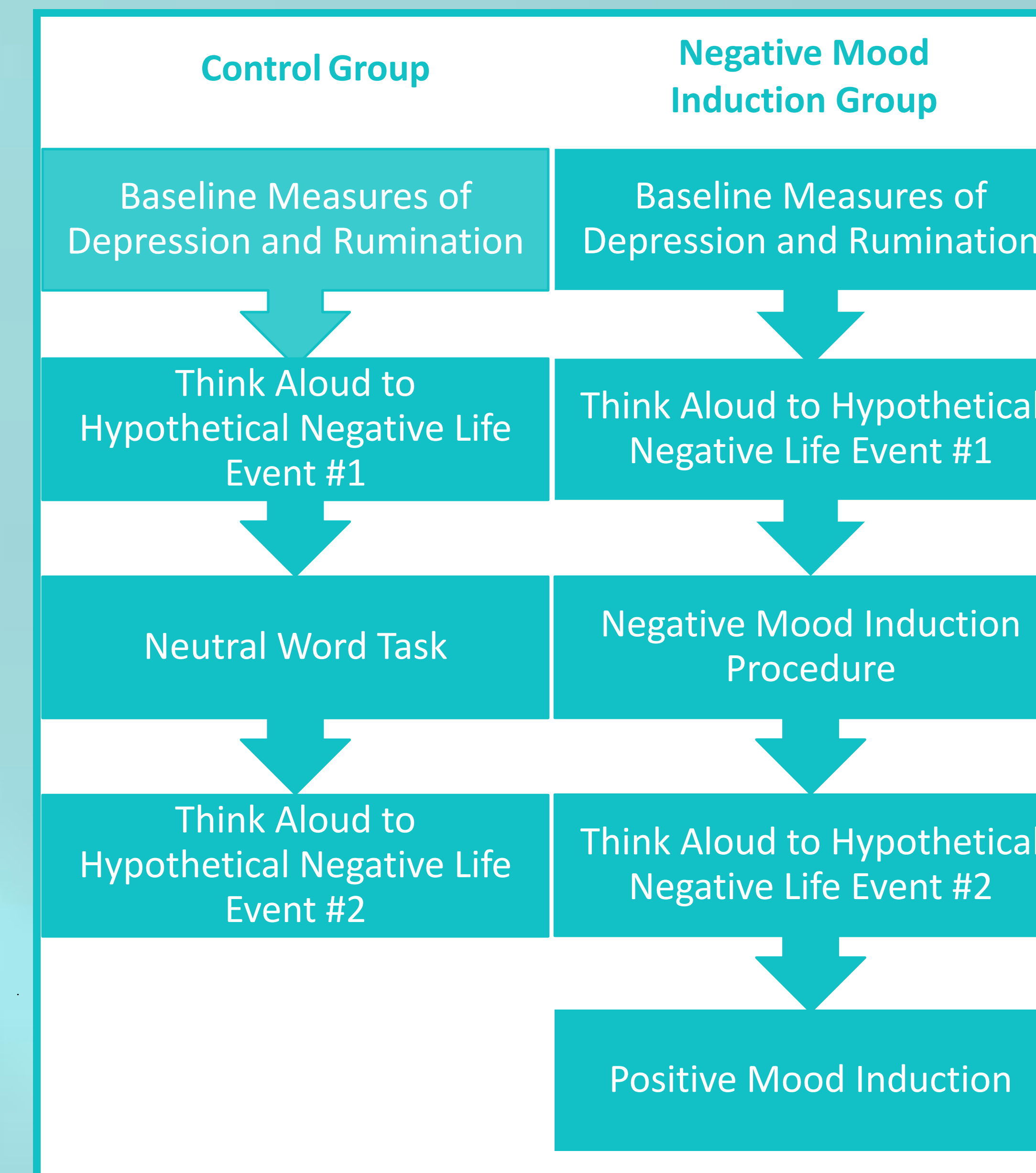
- ❖ Beck's Cognitive Theory posits that depressed individuals display unduly negative thinking patterns that exacerbate depressive symptoms
- ❖ Rumination has been studied as one of these negative thinking patterns
- ❖ Rumination is a negative thinking process, which involves dwelling on causes and consequences of negative events or low moods
- ❖ Previous studies have found that when individuals engage in rumination, they experience more severe and prolonged negative moods
- ❖ However, it is currently unclear whether negative mood can cause an increase in rumination, although it follows from Beck's theory
- ❖ The current study examines whether experiencing a negative mood results in a higher level of rumination when compared to a neutral mood condition
- ❖ Negative mood induction procedures (NMIP) have been used to examine cognitive processes while experiencing low mood states
- ❖ Positive Mood Induction procedures have been found to successfully reduce negative mood, and are used in the current study to ameliorate any lasting effects of the mood induction procedure

## Hypothesis

- ❖ Participants who undergo a Negative Mood Induction procedure will have significantly higher Rumination change scores than participants in the control group

## Methods

- ❖ Participants are randomly assigned to one of two conditions, the Control group (25 participants) or the Negative Mood Induction group (25 participants)
- ❖ All participants fill out self-report measures of current depressive symptoms (BDI-II), negative thinking (ATQ), and trait rumination (RTS) prior to beginning the study
- ❖ All participants will hear a hypothetical negative life event and be asked to talk out loud about how they would think, feel, and act if the event were happening to them for three minutes
- ❖ Following the think-aloud procedure participants complete a self-report measure of rumination
- ❖ Next, participants experience either a negative mood induction procedure or a neutral task
- ❖ The Negative Mood Induction involves thinking about the three most distressing events in one's life while listening to sad music
- ❖ A participant is considered successfully mood induced if they experience a 2 cm decrease in their self-reported mood assessed using a 10 cm Visual Analogue Mood Scale
- ❖ The neutral task involves completing a word find task
- ❖ Again, all participants will hear a hypothetical negative life event and be asked to talk out loud about how they would think, feel, and act if the event were happening to them for three minutes, and again complete a self-report of rumination
- ❖ All participants who complete the NMIP will undergo a Positive Mood Induction Procedure



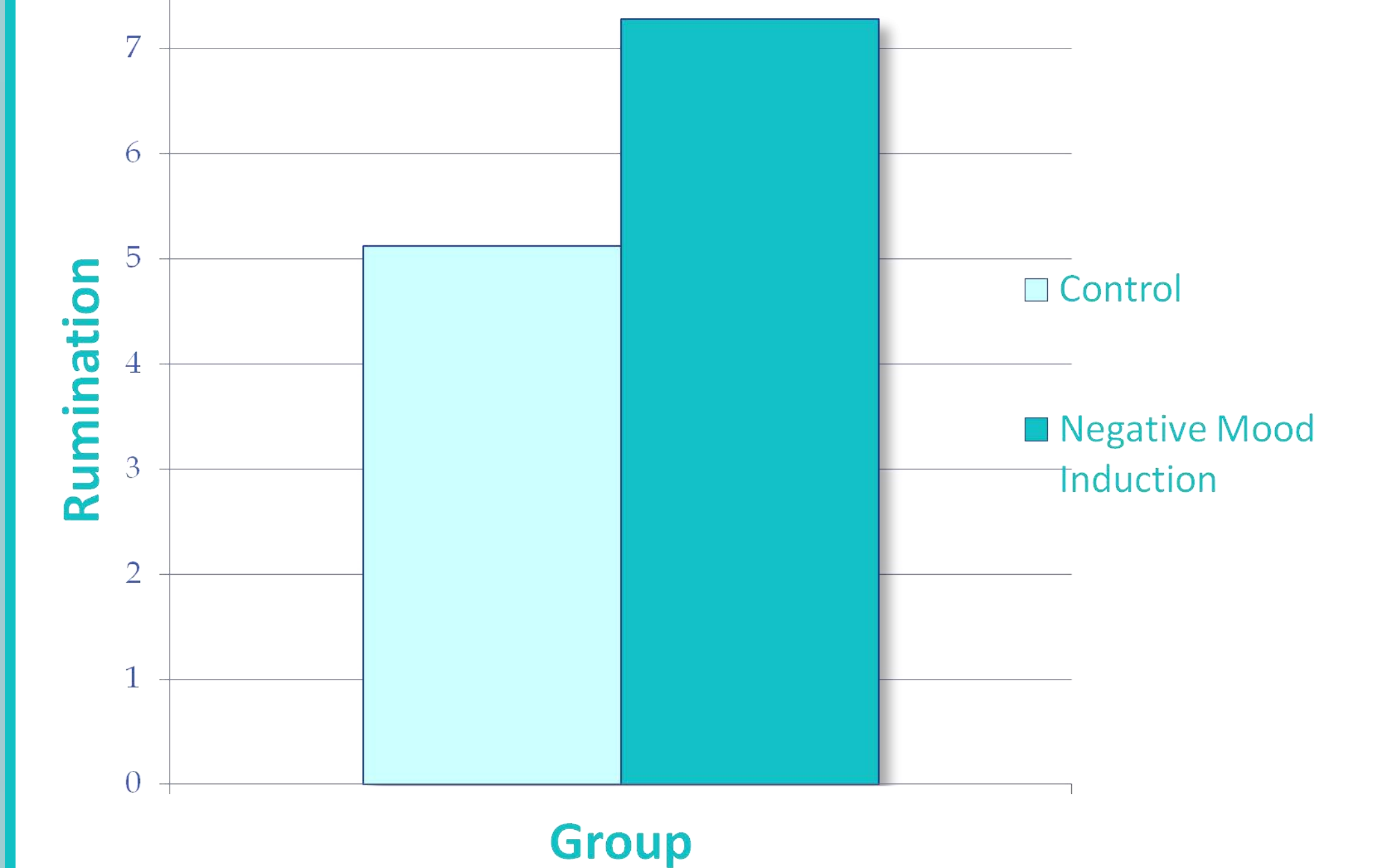
## Participants

- ❖ 50 Undergraduate Students (42 Females, 8 Males)
- ❖ Average age of 21.44 years
- ❖ The majority of the participants identified themselves as Caucasian (62%), followed by Asian (18%), and East Indian (8%)

## Results

- ❖ A between-groups one-way ANOVA was conducted to determine if the Control group and the Negative Mood Induction group had significantly different rumination change scores
- ❖ There was no significant difference between the rumination change scores of the Control group ( $M = 5.12, SD = 12.10$ ) and the Negative Mood Induction Group ( $M = 7.28, SD = 10.08$ ),  $F = .470, p = .496$

The Effect of Group on Rumination Change Scores



## Further Analyses

- ❖ Two objective coders will analyze transcripts of the Think Aloud procedure using both a sentence-by-sentence approach and an overall rating of rumination expressed during the think-aloud procedure
- ❖ The objective ratings of rumination will be compared to the self-report measure of rumination to determine if there are differences in expressed rumination based on how it is measured
- ❖ Regression analysis will be performed to determine if current depressive symptoms and trait rumination scores account for variance in state rumination scores

## Conclusions

- ❖ Undergoing a Negative Mood Induction procedure did not significantly increase levels of rumination
- ❖ Further research should examine clinical populations to determine if experiencing previous depressive episodes leads to increased rumination when in a negative mood